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5^o Decembris 1741.

A
TREATISE
OF
MIDWIFRY.
IN
THREE PARTS.

BY
FIELDING OULD,
MAN-MIDWIFE.

LONDON MEDICAL
SOCIETY OF TO



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TREATISE

OF

MIDWINTER

IN

THREE PARTS

BY

REEDING OULD

M.DCC.LXXV



LONDON

Printed by J. Richardson in the Strand
in the Year 1775

TO THE
PRESIDENT,
CENSORS,
AND
FELLOWS

Of the
COLLEGE of PHYSICIANS
IN
DUBLIN,

This TREATISE is most hum-
bly Dedicated, by their

most obedient,

humble Servant,

FIELDING OULD.

T H E

P R E F A C E.

THOUGH the great Author of our Being has contrived the human Body with surprizing Accuracy, and guarded it against Accidents in a most providential Manner ; yet has he thought proper in his great Wisdom, that it should suffer frequent Interruptions in all its Functions from Irregularities, the constant Abrasion of the Parts composing each Organ, and many other Causes. However, as an Instance of his great Benevolence to Mankind, he has supplied us with artificial Means, whereby we may remove many Grievances to which it is obnoxious ; and none more extraordinary than those, by which Nature is assisted in those Operations which are to be the Subject of the following Discourse.

Certainly the Wisdom of Providence is very fully displayed in the whole Scene of Procreation; and the concurring Circumstances which contribute to Parturition are surprizingly beautiful, as will plainly appear to the curious Reader, through the whole Theory and Practice of natural Deliveries. But as these are frequently impeded, from various Causes both internal and external; (as shall appear in that Part where preternatural Labours are treated of) it is the Duty of every one conversant in this Branch of the Art of Healing, to study, not only the Welfare of those particularly under his Care, but that of the whole Species; by making publick every new Discovery how small soever, which he may be so fortunate as to think of, without Fear of Censure or Criticism; for if his Design be honest, and visibly for the general Good of Mankind, I think there is no doubt but the more valuable Part of the World will esteem him for it, though it be set forth in the meanest Dress; for Truth will appear beautiful, without the gorgeous Apparel of Rhetorick and Eloquence.

This surely must be an Incouragement to every well meaning Man, to contribute his
Mits

Mite to the common Good, especially when he considers how little has hitherto been done, towards the Perfection of the Art of Midwifry; which I believe is too obvious to every one of the Profession who has had Opportunities of putting to the Test, the Rules laid down by most practical Authors in that Way, and the Instruments contrived for the Performance of their Operations: For many of their Schemes are like those of some Navigators and Geographers, who never made use of a Compass, but in their Closet.

Here the Reader may very properly remark, that it is a common Thing for some Authors to calumniate all those who have wrote before them, on the same Subject, thereby to inhance the Value of their own Works; but I think my little Essay can never be considerable enough to incur that Imputation; yet if so it should happen, I have fairly committed the Facts wherein I have differed from others, to publick Censure; and if I have been mistaken in any Circumstance, shall be extremely glad to be convinced of my Error: However thus much I will take upon me to affirm, that I have not advanced one Fact, from the Effects of Imagination

nation or Fancy; but on the contrary, though they be but few and of little Moment, yet they have Truth and Demonstration on their Side, being confirmed by Practice.

I hope the candid Reader will not imagine, that I in any wise assume to myself a superior Knowledge to any of my Cotemporaries in the Art I profess, by publishing the following Lines; no, far be it from me; for I doubt not, but they all (most of them at least) have established to themselves a Method of Practice to the full as good, if not infinitely superior to mine, by their own Sagacity and Experience; and it is a very great Pity that the World hath not the Advantage of it; for the particular Acquisition of every Person added together, would amount to a great Sum whereby our Art would soon flourish.

The following Treatise contains a Scheme of the whole Art of Midwifry, divided into three Parts, which take in the most approved Practice contained in those Books which have hitherto been published on the Subject; offering such Amendments to the same, as my own Experience and the Reason of the Thing suggested to me.

me. But as it certainly wants that Strength, and Clearness of Expression, which the Reader may reasonably expect; I think it necessary to endeavour by way of Preface, to clear up some Circumstances therein contained.

In the first Part, (which is designed as introductory to preternatural Deliveries) is given a short Description of those Parts which are to be the Subject Matter of our Discourse; in which are interspersed some Hypotheses, which though not absolutely necessary to the Practice, yet may probably be agreeable to the curious Reader.

The first Matter that seems to have this Appearance relates to the Texture of the Vagina, which is said to be as though it were knit like a Stocking; the great Variety of Shape that it is capable of, making it a probable Conjecture, and besides, I have more than once endeavoured to unravel its component Fibres, but could not. And through a magnifying Glass, the Disposition of them appeared very much complexed: Moreover, the great Advantage that will be found through the whole Course of the following Work, to ac-
cruce

crue from this Theory, will no doubt be a sufficient Support to the Conjecture.

In the Description of the Womb, there is more Minuteness than is usually found, or is necessary in a general Course of Anatomy; for the Particularities concerning the Situation, Connexion, Structure, &c. how trifling soever they may appear, are of infinite Use in the Practice of Deliveries. For every little Circumstance of this Kind will give a helping Hand to the Perfection of a doubtful Operation; when the Surgeon has it in his Power to call them all immediately into his Mind, to his Assistance. They are certainly as necessary to the Perfection of this important Work, as the Application of mechanick Powers is to the raising of ponderous Bodies,

I have entered particularly into the Manner of the Wombs Dilatation, during the Time of Gestation; my chief Motive for which, was Mr. MAURICEAU's arguing so strenuously, that it grows Thin in proportion as it Dilates, without receiving any Degree of Accretion, but as a Bladder is distended by Inflation, from a thick Substance to a very thin Membrane,

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Membrane. The Absurdity of this Position is demonstrable on many Accounts :

A Bladder indeed by Inflation, diminisheth in Thickness, in Proportion to the Distention, but yet its Weight doth not vary ; whereas the Womb weighs at least an hundred Times as much at the Birth of the Child as before Conception. Besides, it is wronging Providence to the last Degree, to let slip, not to say conceal, a Phænomenon, so surprisingly beautiful, because it surpasseth our narrow Comprehension.

I have taken upon me, by way of Corollary, to the above Reflections, to take some Notice of Uterine Discharges in the Time of Gestation, though it in some Measure exceeds the Bounds to which this Treatise is limited ; but the generality of Women have got it into their Heads, that nothing can be done to prevent Abortion, where there is the least Discharge, and therefore neglect the Advice of a Physician, whereby they often lose their Child, and sometimes their own Lives ; wherefore I just hinted at that Matter, merely to remove such a pernicious Prejudice.

The

The Reader will find the general Opinion controverted, concerning the Cause of the Child coming Head foremost into the World; and probably he may say that the Cause is not material to the Practitioner, since he finds the Fact so; but the Consideration of the Cause of it, may be very useful towards the right Management of the Delivery: For according to the general Opinion, this Alteration of Posture happens sometime before the End of Gestation; and if it were so, the Mother would scarcely feel the Child stir from that Time. For the Motion which she feels, is from the Hands and Feet being against her Belly; whereas that must consequently cease, when they are turned towards her Back; besides, the first Labour Pains, which are but very small and of short Duration, continue their Repetitions, perhaps for two or three Hours, and often more, before there is the least Effect produced on the Os Tincæ; which Time must certainly be employed in turning the Head towards the Orifice; which being compleated, the Waters begin to gather: Moreover, this great Alteration in the relative Gravity of the Head, must happen gradually, from some Change in the Consistence of the Brain whereby its constituent
Particles

Particles become closer united ; and according to this Way of reasoning, which is the only Method of reconciling it, the Head and lower Extremities must remain for some Time in Equilibrio in the Womb, which must consequently produce an extraordinary Prominence in that particular Part of the Mother's Belly ; which has never yet been observed. Again, if this were the Cause of the Head's coming foremost, it must be general, and in common to all Children ; so that they must all come in that Direction, if not interrupted in their rotatory Progress, whereby they may happen to be transverse ; whereas it is well known that many Children are born with the Feet foremost, which never could have happened, if the preponderating Gravity of the Head, were the Cause of this Revolution. The Cause why the Feet sometimes present, is certainly from the Body being in a more than ordinary erect Posture in the Womb, at the Commencement of Labour, whereby the Compression of the Parts designed for that Purpose, thrusts the Body forward in a direct Line, and consequently the Feet against the Orifice of the Womb.

The

The Remainder of the first Part contains a general Direction for the Management of Women in natural Labours; which in the most concise Manner guards against those Accidents which might render the most natural Labour, preternatural; and to this End, I hope that the Description of the Head coming towards the World with the Chin turned to the Shoulder, will be of very great Advantage. And here I will frankly acknowledge how this Discovery occurred to me: I was at a Labour in Paris, which from all Appearances promised to be very successful and speedy; the Water gathered and broke very advantageously, but as the Head approached towards the World, its Progress grew tedious, so that at the latter End, the Spectators saw it make its Appearance, and immediately return back out of Sight, and that several Times; whereupon seeing the Head in the above Direction with the Chin on the Shoulder, it was unanimously declared, that the Child was in a preternatural Direction, which impeded the Delivery; I made a strict Inquiry with my Fingers, and found Space sufficient to give Passage to the Head, though in that Situation, and consequently, that some other

ther Cause must retard the Operation. At length, by mere dint of the Patient's Efforts, who was strong and robust, the Head was thrust so far, that the Operator took hold of it, and with Difficulty brought it forth, and found the Funis rolled several Times about the Child's Neck, which was the Cause of all our Trouble.

I at my Leisure reflected on the Circumstances of this Labour, and soon began to consider the Necessity of this Disposition of the Head; to confirm which, I made the strictest Examination of every Woman, which I either delivered, or saw delivered during my Continuance at Paris, which perfectly convinced me of the Truth of what I suggested.

Mr. DEVENTER has extolled his own Praise prodigiously, on Account of his Management of the Os Coccygis, when it impedes the Exit of the Child; yet notwithstanding, I hope the Reader will find the Method laid down in this Treatise, preferable to it on many Accounts; for beside what is already said for that Purpose, his Method is capable of bruising the Vagina
b and

and Rectum; by the Finger's being fixed on the very End of the Coccygis, which is very small and uneven; whereas, by placing the Thumb on the flat Side of this Bone, beyond the Point, the above Evils are removed; besides, here the Vagina is quite disengaged.

I have also differed intirely from Doctor DEVENTER, in a very material Point, namely, the Manner of extracting the Placenta; and I hope the Reader will be convinced by the Reasons which he will there find, that my dissenting so absolutely from an Author of so much Credit, is not for a Desire of Wrangling, but ingenuously to propagate the true Knowledge of the Art which I profess.

The Manner of assisting a weak Patient in her last Labour-Pains, by introducing a Finger into the Anus, has never before been taken Notice of by any Author which I have seen; which I wonder at, for the good Effects of it, are obvious to the meanest Capacity.

The Remainder of the First Part contains full Instructions for the Management of Women in Labour, under the common incidental Circumstances which natural Labours are subject to ; and at the same Time introduceth us to those more laborious and preternatural, which are the Subject of the Second Part. Thus much only remaining to be observed ; namely, that the Assistance of a Surgeon particularly instructed in the Art of Deliveries, is generally necessary in the most natural Labours : First, as they have it in their Power, from their Skill in that Art, founded on their Knowledge of the Animal Oeconomy in general, and Chirurgical Operations in particular, to prevent at least one third of the Pain, which without their Assistance must happen : And Secondly, by their preventing Labours originally natural, from becoming the contrary, which is too often the Case under the Misconduct of Female Midwives, of which we have frequent Opportunities of being convinced, as the ensuing Treatise will sufficiently prove.

In the Second Part, those preternatural Cases which partake least of Danger, are first
b 2 *introduced ;*

introduced ; and as the Reader advances, he will find the Difficulties increase, 'till he arrives at the Third Part, which treats of those Labours where Hands alone are not capable of affording Relief ; which compleats the third Degree of Comparison.

In taking Notice of the Difficulties which arise from the relaxed State of the Ligaments supporting the Womb, I have differed widely from the Sentiments of Mr. MAURICEAU. Here I must assure the Reader, that it is with great Reluctance I oppose the Practice of so worthy an Author, who has in so many Respects shewed his Zeal for the Service of the female Sex ; however, I am of Opinion that his Benevolence to Woman-kind would make him incourage the Endeavours of a mean Personage towards the Improvement of the Art of Deliveries ; and even to obliterate some unguarded Stroaks, in his great Plan of Midwifry, which perhaps through Hurry he might have overlooked.

Immediately after this Matter is discussed, the Reader will find me opposing Doctor DE-VENTER'S Assertions concerning the Oblique Di-

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Directions of the Womb. This Matter surprized me more than any Thing I ever met with: That a Man should impose on the learned World in a Matter so demonstrably false. His Book whose Basis is chiefly founded on this Innovation, has the Approbation of several great Men, who certainly did not consider the Case, with a View to Practical Phenomena, which is the whole Business of the ensuing Treatise.

In the *Directions* for bringing the Child forth by the Feet, the same Author adviseth the greatest Piece of Cruelty that can be imagined; namely, to leave the Hands to come out together with the Head; the Absurdity of which Practice is obvious to any Person who ever delivered one Woman, even in a natural Labour; indeed if he had advised this Practice in a Miscarriage, after six Months Pregnancy, and where there is an immoderate Flux of Blood; then this Method, for Expedition, might be commendable.

Hence we proceed to that deplorable State, where Instrumental Operations are necessary; to hinder the rash Undertaking of which, I

have used my utmost Endeavours; and have taken upon me strenuously to advise Consultation in all doubtful Cases. I have also abridged the Number of Instruments generally used in these Emergencies, I hope much to the Advantage of the Reader, and particularly his Patients; and that chiefly by the Help of one Instrument, which I have contrived for that Purpose; answering the End of many heretofore in common Practice, with this among other remarkable Differences, that the Mother is not in the least Danger of being wounded or hurt, by the Application of it; whereas most other Instruments (cutting ones especially, as this is) are extremely dangerous, not to say fatal to her.

I have taken particular Care in the Description of the large Forceps for extracting the Child; and endeavoured with the greatest Exactness, to consider when it is, or is not proper to apply it; for the bringing of the Child forth, is not the only Thing to be considered in the Use of this Instrument; the Consequences of its Application must always be in the Operator's View, both with regard to Mother and Child, as he will find by the careful
Perusal

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Perusal of the Directions laid down for that Purpose.

There are Histories of particular Cases interspersed through the whole Work, in order to confirm what is therein set forth, and also to shew the Method of using the Instruments, with the Cases to which each is adapted.

It is common in most Books of Midwifry to have much more said in relation to Monsters, than the Reader will find in this Treatise; for here is omitted the accounting for their Production, with numerous Histories of them, containing perhaps more Variety than Truth, thereby to swell a Volumn.

I have taken upon me absolutely to explode the Cæsarian Operation, as repugnant, not only to all Rules of Theory or Practice, but even of Humanity, and in endeavouring to account for the espousing of such a Practice, I have mentioned, that it might possibly arise from an Article in the Roman Catholic Faith, whereby they don't allow Salvation to unbaptized Infants, which possibly might have
b 4 *incouraged*

incouraged some (more biggotted than truly religious) to exercise this Piece of Cruelty.

Now lest any of the present Age in that Faith, should take amiss this my Assertion, I must take this Opportunity to inform them, that what I mentioned, must have happened in the Beginning of the last Century, an hundred and forty Years since; that I am far from thinking that any of the present Age could be capable of it. Mr. MAURICEAU, and many others of the same Religion are absolutely against it. But what seems to confirm my Opinion concerning this Matter, is this: The Sorbonne Doctors in Divinity at Paris, in the Year 1733 have cleared up this Affair, and have laid down Rules, when and in what Cases, you are to prefer the Life either of the Mother or Child; which may be seen at large in the French Translation of Doctor DEVENTER'S Book of Midwifry, Pag. 357.

Their discussing this Matter so particularly as they have done, shews that there had been a Want of it, whereby Errors might have been committed. But to conclude:

I would

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I would not have the Reader imagine, that the following Sheets contain a compleat System of Midwifry, by which that Art may be perfectly learned ; I would have him read this little Book, after those which have gone before it ; and even that how carefully soever done, will not make him an Adept, without ocular Demonstration, and a long continued Exercise of the Hands in this, as well as other Chyrurgical Operations.

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A

TREATISE
OF
MIDWIFRY.

PART I.

THOUGH Chirurgical Knowledge has been daily increafing, and receiving Improvements from the earlieft Ages, but more efpecially, from the Time of HIPPOCRATES, by the constant and indefatigable Industry of many eminent Men, in moft Nations where Learning was
B cultivated,

cultivated, and still continues in the same successful Progress; yet the Art of Midwifery, which is one of its most considerable Branches, and that which, by the common Principles of Humanity, we are indispensably bound to illustrate, by our most diligent Inquiries, and nicest Observations; is, and I think always has been, the least taken Notice of; altho' it be universally acknowledged to be the Duty of every one who is conversant in any Branch of the Art of Healing, to communicate whatever occurs to him, that he thinks may be of Service to the Public. Nor is this Art, in any respect the meanest Province in the medicinal Commonwealth, but much on the contrary; as on it depends, not only the Preservation of the Species, but the various Methods of relieving distressed Women, from extraordinary Pain and Torture, innumerable Disorders and Death, the Consequence of bad Practice; from misapply'd and ill contrived Instruments; and even from the injudicious Management of the Hands.

IT

IT is not much to be wondered at, that this Art should escape the nice Observation of the Ancients ; for while their Time was taken up in the Prevention of Evils, for which no Help had been provided, the Women practised Midwifry ; and in all likelihood, their Skill was never called in question ; but as medicinal Knowledge increased, it became very apparent, that there was more Learning and Dexterity required, in the prosecution of this Art, than what could be expected from ignorant Women, who generally had the meanest Education : And then it was, that Men, who were well acquainted with Operations in general, applied themselves to the Improvement of this Art ; whereby, many Women were rescued from Death, that before in the like Case, were in all probability deemed irretrievable.

IN Consequence of this Practice, there were several who wrote particular Treatises on this Subject ; and had the common good so much at Heart, as to communicate their own Observations on Facts, of which they have given us the several Histories ; the following of which good Example, would

certainly have added very much to the Perfection of Midwifry.

THOUGH we be greatly indebted to our Predecessors, as PAREE, GUILLEMEAU, LIEBAUT, BIENASSIS, PORTAL, PEU, MAURICEAU, VIERDEL, AMAND, DIONIS, LAMOTTE, CHAMBERLAIN, DEVENTER, and others; yet there is scarce one of their Works, that may not admit of Improvement, as shall be remarked hereafter.

THESE Reflections, were the Motive of my committing my Thoughts concerning Midwifry, to writing; though at the same Time, I was thoroughly conscious of my Inequality to the Task.

THE candid Reader must not expect to find, either Purity of Stile, or Elegance of Expression, in this Undertaking; and I hope he will criticise more tenderly on it, when I confess, that I spent that Time which others employ in their Improvement in polite Literature, in a more laborious Manner; namely, in the Dissection of human Bodies, and a
constant

constant Application to Practice. No more therefore must be expected from me, than what is merely intelligible ; and should I be happy enough to strike out the least Spark of Light, by the Help of which, others more accomplished may illustrate this Subject, my Ends are answered.

IN this little Essay, I shall give a short Sketch of all the principal Matters relating to the Delivery of pregnant Women ; in order to come the more directly to what I imagine may be some small Improvement to the Art I profess, I shall begin with Anatomy, the true Knowledge of which, should be acquired in the first Place, as the surest Foundation whereon to build the rest. Nor is it alone the dissecting of Women, for the Discovery of the Parts of Generation and Parturition, and their Phenomena, that sufficeth for this Purpose ; for there is no Part of that Knowledge, which does not in some respect, conduce to that of Midwifry. For Instance, in order to know the Nature of, and the Means to prevent Abortion, it is necessary to be well acquainted with the Circulation of the Blood, and its Laws.

THE comparative Anatomy between a Fœtus and an Adult, is a very necessary Præcognitum in preternatural Labours, as shall be proved hereafter. The contracting Power of a Fibre, and what Degree of Extension it will admit of, is by no means unworthy our Observation. Hence it is evident, that not only a practical, but a speculative Knowledge of Anatomy, is as absolutely necessary in this, as in any other Branch of Surgery.

WHAT has been hitherto mentioned in relation to Anatomy, is what should be perfectly known, before the particular Study of Midwifery be undertaken. And as the Subject of it commences, from the Time of Conception to the Delivery of the Patient, I hope it will not be thought improper, to say something of the Fœtus in Utero, its adhesion to, and Communication with the pregnant Mother.

FIRST then, it will be proper to say something of the Matrix, before we describe its Contents; and, as I suppose the Reader already an Anatomist, it will be sufficient to take Notice, only of as much as may be of Use

Use to our present Purpose; omitting the more external Parts which require no anatomical Description. The Vagina is the first necessary Part to be considered, and is generally described thus : A Canal reaching from the Pudendum to the Orifice of the Womb, lying between the Bladder of Urine and the Rectum ; about five Fingers Breadth long, and one and an half wide in Maids ; but in Women, its Length and Capacity, are not easily determined, having two Coats ; the internal, membranous and much wrinkled, the external, muscular ; its Veins and Arteries, from the Epigastric and Hæmorrhoidals, and Nerves from the Os Sacrum.

FROM the many Variations, which the Form of the Vagina is subject to, one might imagine, that the Texture of it is very different from what is described by most Authors ; for certainly a parallel Direction of muscular Fibres, either longitudinal, or transverse, must greatly hinder, and be much damaged, not to say torn asunder, by the prodigious Distention it must undergo, in giving Passage to a Fœtus of almost any Size ; wherefore it seems

very probable, that the Texture of it resembles that of a loose knit Stocking ; which the curious will be more inclined to believe, upon an anatomical Examination of the Part ; and especially if we consider, that by some preternatural Situations of the Fœtus in Utero, it is sometimes stretched to the length of twelve Inches, and most commonly in Parturition to five Inches diameter ; which Distention is performed in an Instant of Time ; whereas, if it were brought about by an intricate Change of the Constitution, and that gradually, as in the Womb of pregnant Women, it might be otherwise accounted for ; we shall also give a farther Proof of this Opinion hereafter, in the Directions for Touching or examining Pregnants, and those in Labour.

THIS Canal leads to the Matrix, the Seat of the most surprizing Phenomena of Providence ; this Bowel, according to the most usual Description, is situated in the Pelvis, between the Intestinum rectum and the Bladder. As the Vagina, or Neck of the Womb, is described after the same manner, with regard to its Situation, it may not be amiss, to shew how they differ in this respect. 'Tis certain, the

the Bladder when full of Urine, covers the Womb, but is by no means continuous or adhering to it, as to the Vagina ; nor does more than the Neck of it adhere to the Rectum ; for were it confined in that Manner, how could it extend itself, so as to occupy almost the whole Capacity of the lower Belly ? Besides, the first Object that usually presents itself, when the Belly is opened and the Omentum removed, is the Bottom of the Womb, perfectly disengaged, and turned towards the Os Pubis, and its inner Neck towards the Sacrum, making an obtuse Angle with the Vagina ; it is necessary to be thus particular in this last Circumstance, because the strict Observance of it will be of great Use, in Touching or examining pregnant Women ; on the Exactness of which Operation, the Success of the Delivery in a great measure depends, as shall be shewn hereafter. But to return : The Figure of the Womb is like a flattened Pear, or rather a Triangle, with the Corners rounded off, having a Hole pierced through each Angle ; it is about three Fingers breadth long, reckoning the Collum minus, which is one Finger ; two broad, and and one and a half thick, in Women who
have

have had Children ; but in those who have not had Children, it is not much above half that Size ; its Cavity in Virgins, will contain a small Almond ; the Form of it is streight in the Middle, but more capacious on each Side, towards the Cornua ; one Angle and its Perforation, makes the Orifice from the Vagina into the Womb ; on the outside, where it opens into the Vagina, there are little Lips, making an Appearance like a Rabbit's Mouth ; but the whole Passage, which is about a Finger's Breadth long, being wider on the Outside than at the Entrance into the Womb, and that full of Rimulæ, from its Resemblance, is called Os Tincæ. After you pass the Os Tincæ, there goes a kind of Ridge from it to the Bottom of the Womb, both on the upper and lower Side of it, which are contiguous to each other, making a Division in that Cavity, which leaves, as it were, a Ventricle on each Side ; in these Ventricles, at the other two Angles of the Womb, which are called its Cornua, are two very small Perforations, for the Admission of the impregnated Ovum ; there are in the whole Surface of the Cavity of the Womb, and particularly about its Neck, a great Number of small
Glands,

Glands, which separate a mucous Liquor, to seal up, as is imagined, the Mouth of the Womb, after Conception ; but this seems very improbable ; first, from the Improbability of such a Liquor in so moist a Part, acquiring a Consistence necessary for that purpose ; and secondly, from the Shape of the Orifice, which being exceedingly small at the Entrance into the Cavity, has no Occasion for such a Contrivance ; for the least degree of Contraction, of which it certainly is capable, will effectually hinder the Exit, at least of the Ovum. These Glands being situated near the Neck, might possibly give rise to this Conjecture ; but it must be considered, that this is the only Place that can be spared for them, for the whole Bottom of the Womb is taken up by the Placenta ; now the only Method to strengthen this Opinion, is to find out some more efficacious Use for this Liquor ; and that may possibly be, first, for the impregnated Ovum to swim in : Secondly, to forward the Growth of the Roots (if so we may call them) that are to insinuate themselves into the Mouths of the uterine Blood-Vessels : Thirdly, to moisten and lubricate that Side of the Chorion next the Womb : And fourthly,

ly, instead of closing, to help the Relaxation of the Os Tincæ, in Time of Labour. These Glands when relaxed, are the Seat of a Fluor albus.

BEFORE we leave this Cavity, it may not be amiss to take some Notice of the Division made in it, by the meeting of the above-mentioned Protuberances from either Side : This in all likelihood, was designed to hinder Confusion, in case of the Conception of Twins ; for were it not for this Contrivance, the Placenta of either, might possibly as well grow to the other, as each separately to the Fundus Uteri ; and very probably, both Ovaria, and consequently both Orifices of the Cornua, are employed on this Occasion.

NEXT we are to consider the Womb with regard to its Substance and Structure, which is perhaps the most extraordinary of any similar Part in the human Body : Its Substance is composed of fleshy Fibres, interwoven with Blood-Vessels, which are contorted so as to make several Bundles of different Directions, to strengthen its contracting Quality, for the Expulsion of the Fœtus ; the Bottom of the
Womb

Womb grows thick as it dilates, for the more firm Attachment of the Radicles of the Placenta.

IT is certainly worth while to consider, how this wonderful Dilatation of the Womb is performed, without lessening the Thickness of its Substance; and in order thereunto, it is necessary to premise some few Circumstances; First, that the Substance of the Womb when not pregnant, is exceedingly compact: Secondly, that it is of a very whitish Colour: Thirdly, that when pregnant, and in proportion as that increases, it grows more and more spongy: Fourthly, that in the same Proportion, from whitish, its Colour becomes daily redder, 'till it approaches to blackish: Fifthly, that the Blood-Vessels of the Womb have frequent Inosculations, and that the Veins are without Valves: Sixthly, that the Catamenia are generally obstructed from the Time of Conception, though the Embrio or Fœtus, from its Size cannot require so great a Quantity of Blood, if any, for its Support: Seventhly, and lastly, that the Uterus immediately collapses after the Extraction.

tion of the Placenta from the Loss of Blood that enfues.

FROM these Considerations, it is reasonable to conceive, that the Uterus is composed of almost infinite Circumvolutions of exceeding small Vessels, which must be Continuations of the Spermatick Arteries, containing a most subtile Lymph forced into them by the Arteries, just to preserve their Cavities open; and that upon Conception, there may this surprizing Alteration happen, among others as unaccountable, that instead of breaking forth, in the usual monthly Eruption, the Blood may insinuate itself into these Vessels, and inflating them, unravel their Circumvolutions, and from exceedingly curved, make them approach to strait Lines; which will evidently enlarge its Capacity, without diminishing, if it does not increase the Thickness of its Substance.

IT is demonstrable, first, that from whitish, its becoming red must proceed from the Acquisition of Blood which before it had not: Secondly, that from compact, its becoming of a spongy Texture, must be caused by the Dilatation

latation of those Vessels, whose Cavities before were exceedingly small: Thirdly, as the Blood-Vessels of the Womb have many Inosculations, and are without Valves, this new Acquisition of Blood must be the more general and uniform, consequently, the Dilatation of the Womb equal: Fourthly, as there is an Obstruction of the Menfes, even before the Adhesion of the Placenta to the Uterus, there must be some other Employment for the Blood, besides the Nutrition of the Fœtus: Fifthly, there appear Blood-Vessels on the Surface of the Womb after Impregnation, that increase gradually to the Size of a Swan's Quill, which do not by any Means appear before Impregnation: And lastly, when the Placenta is extracted, the Womb collapses by the great Loss of Blood which always follows.

FROM the foregoing Reflections, may be deduced some useful Remarks. It is known by Experience, that the menstrual Discharge sometimes continues in its usual Regularity, for two or three Months after Conception, without any dangerous Consequences; but when it happens out of the regular Period, there

there is Reason to fear an Abortion ; and it is generally imagined by Women, that to use any Means (except keeping the Patient quiet) to prevent it, is useless, if not hurtful : This there is some Reason for, if the Eruption happens at the Bottom of the Womb, so as to eradicate any Part of the Placenta ; for it is extremely probable, if the least Portion of it be disunited, that there will be a constant Flux of Blood, 'till the whole is separated, and the Abortion compleated ; but from the foregoing Theory of the Texture of the Womb, it is evident that this Eruption may happen at any Part of the Sides, or its Neck, as well as at the Insertion of the Placenta, from any extraordinary Commotion of the Blood or Spirits ; and in this Case, the Flux may be easily stopped, by making a Revulsion ; either by bleeding in the Arm, or taking a gentle Vomit, or both ; but this and quieting the disturbed Spirits, by the Help of Medicines, are to be done by the Advice of a skillful Physician.

THE Womb is supported by its Connection to the Vagina, and by four Ligaments, two round and two broad ; the round take
their

their Origin from the Neck of the Womb, and are continued to its Sides, till they come near the Cornua; then they go through the Rings of the Oblique and transverse Muscles of the Abdomen, and are partly inserted into the Os Pubis, and partly into the Musculus Membranosus, on the inside of the Thigh; these are strong white Ligaments, thick at their Origin, and growing small as they approach to their Insertion. Their Use is to support the Weight of the Fœtus, that it should not press too much on the Vagina, Bladder or Rectum; and the Contrivance of Providence for that Purpose is admirable; for the Rings of the Obliquus serve as Pullies, whose Axes are higher than the Womb, without which, that great Weight could not be supported; all the Bones of the Pelvis being nearly on a Line with its Neck.

THE broad Ligaments, which are Continuations of the Peritonæum, from the lower Part and Sides of the Womb, are inserted into the Offa Ilia; their Use is to keep the Womb from inclining either to one Side or the other, and they are a Suspensorium to it, when Women lie on their Back, that it

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should

should not press the subjacent Viscera and great Blood-Vessels.

AT the upper Edge of these Ligaments, there is another small round Ligament, which is extended about four Fingers Breath from the Womb ; to their Extremity, and continuous to the Ligamenta lata, are the Ovaria fixed ; they are two whitish oval Bodies, a little flat, particularly on one Side ; they are two thirds less than the Testicles of Men, their Surface unequal, and as it were wrinkled in old Women, but smooth in Young ; their Substance is composed of fibrous Membranes which leave little Spaces between them for the Eggs, which have each two Membranes, containing a pellucid Liquor, which congeals by boiling ; their Number is uncertain.

FROM the Cornua Uteri, at the Perforations before mentioned, arise two Canals, for the Conveyance of the impregnated Egg into the Womb ; they are very small near their Origin, but grow large towards their Extremity, (so as to receive ones little Finger) which is jagged like Fringe, the better to embrace

brace the Ovarium in the Act of Generation, for the Reception of the Egg, which as is said before, it conveys into the Womb. How this great Mystery of Nature is performed, I do not pretend to determine; but there we find it, and from that Time till it comes into the World, it is the Subject of our present Essay.

WHEN this Egg comes into the Womb, by the Moisture and Warmth of the Part it swells, and in a vegetative manner shoots forth Roots from the Extremities of the Vessels that were broke at its Separation from the Ovarium, which like Seed in the Ground, strike into the Bottom of the Womb, where the Placenta is formed, which appears like a Cloud on the external Coat of the Egg; then the Heart or Punctum Saliens, the Spine, Cerebrum and Cerebellum, and last of all, the Extremities of the Embrio appear gradually, one after another.

HERE it is proper to consider, in what Position the Fœtus lies in the Womb, during the Time of Pregnancy; as we are frequently

quently obliged to extract it by manual Operation, before the Natural Time of the Birth, on Account of extraordinary Uterine Fluxes of Blood, from various Causes as above-mentioned. Its Posture then is this ; its Head hangs down with its Face on the Knees, which are as high as the upper Part of the Breast, and its Heels close to the Buttocks, and the two Arms imbrace its Legs ; having its Face towards the Mother's Belly ; if we did not consider this Posture, in the great Hurry one is usually in, on seeing a great Flooding, we might take the Buttocks for the Head, they being when the Fœtus is young, very near of an equal Softness ; whereas we must always on this Occasion take hold of the Feet.

THE Fœtus swims in a Liquor, which is contained in a Bag composed of two Membranes, called Chorion and Amnios ; the Chorion, which is the external, is by much the thicker, somewhat opake, rough on its Surface next the Womb, having visible Blood-Vessels, and is contiguous to the whole Inside of the Womb ; the Amnios which is much thinner, and perfectly transparent, lies immediately

diately under this, and is next the Fœtus and Waters ; these Membranes are continued to the Bottom of the Womb by the Placenta, and the Fœtus to them by the Funis Umbilicalis : All which gradually grow together in proportion to each other, from the Time of their Formation, till they are brought forth. In the last Month the Womb extends itself through the whole Cavity of the lower Belly up to the Diaphragm, and under the Concave Side of the Liver, which causes such a Difficulty of breathing in pregnant Women, after eating a plentiful Meal ; the Membranes being contiguous to its Inside, are nearly of the same Size, and beside the Fœtus which they contain, are always full of Water, which increases in Quantity, as they do in Capacity ; the Placenta at its full growth, is commonly about eight Inches diameter, being of a round Figure, and in its Middle about two Inches thick, but growing thin towards its Circumference ; its Substance is made up of infinitely small Blood-Vessels both Veins and Arteries, which are joined to those of the Matrix, which are the Source of the menstrual Evacuations before Pregnancy. The Veins of this Mass join together as they approach the Funis,

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where

where they are all united into one Tube large enough to receive a little Finger, which is called the Umbilical Vein.

THIS Vein enters into the Abdomen of the Fœtus, at the Navel, and goes directly into the Liver, where it discharges itself into the Sinus of the Vena Portæ; whence by a particular Canal it is carried in part to the Vena Cava, which conveys it to the Heart. As the Circulation through the Heart and Lungs of a Fœtus is extremely different from that of an Adult, it may not be amiss in order to illustrate that Difference, to remind the Reader of its Circulation in an Adult: Here the Blood is brought by the Cava into the Right Auricle of the Heart, thence into the Right Ventricle, which by its Contraction forces the Blood through the Pulmonary Artery and its Branches in the Lungs, where it is again received by the Pulmonary Vein, and brought back to the left Auricle, thence into the left Ventricle, which drives it into the Aorta, and so through the whole Body.

Now in the Fœtus, the Blood, as was said before, is conveyed by the Canalis Venosus
into

into the Cava, thence to the right Auricle, from that the greatest Part of it is conveyed immediately into the left Auricle (and so on as in the Adult) by an Opening in the Partition that divides them, called Foramen Ovale from its Figure; were it not for this Contrivance, there could be no Circulation, for being destitute of Respiration, the Blood could not pass through the Lungs as in the Adult; but that the right Ventricle should not be absolutely without Action, some Part of the Blood escaping the Foramen Ovale, goes into it, whence it is thrown into the Pulmonary Artery, which still meeting with Opposition in the Lungs, in great measure passes directly into the Aorta, by a Canal for that purpose, called Canalis Arteriosus, and thence through the whole Body of the Fœtus.

BUT to continue the Circulation between the Mother and Fœtus: From the Iliacs arise the Umbilical Arteries, which are two in Number, one from each Iliac, which go along the Sides of the Bladder, continuous to it, and contiguous to each other, from thence to the Navel, whence they go spirally round

the Umbilical Vein, till they enter the Placenta, where they are divided into very small Branches to join the Uterine Veins.

THE Umbilical Vein and Arteries make the Funis, which is about the Thickness of one's Finger, and a full Yard long.

IT has been strongly argued by many eminent Authors, that there is no Circulation between the Mother and Fœtus, and whole Volumes have been wrote in Defence of their Opinion; but certainly it was more for the Love of Argument, than the Desire of propagating true Knowledge. For what need there be more said to prove it, than that if you cut the Funis before the Extraction of the Placenta, the Blood will flow from the Mother by the Umbilical Vein; and from the Fœtus by the Arteries, if there be not a Ligature between the Section and the Fœtus, which I have tryed for Experiment Sake.

Now we have brought the Fœtus to the Time when it is generally thought that the Head grows specifically heavier than the Body; which is said to be the Cause of its coming
ing

ing foremost into the World ; this is a strange Conjecture, when every considering Person must be convinced, that the Head is really larger in a double Proportion, with regard to the Body, at its first Formation, than at the last Month of Gestation. With the greatest Submission to those of better Judgement, the Cause seems evident from the original Posture of the Fœtus ; namely, having the whole Spine curved, its Head hanging down as if it were looking into the Pelvis, so that the Fontanell is just opposite to the fore Part of the Mother's Belly. Now let us consider that the first and greatest Efforts for the Expulsion of the Child, are in the Bottom of the Womb, which presses directly on the Back of its Head, and must immediately turn it downwards with its Head towards the Vagina, and Face to the Mother's Back, especially as it is at this Time floating in the Waters.

IF this Opinion be just, it must necessarily follow, that the Change of Situation in the Fœtus does not happen, till after the first Labour-Pains ; and it is also very probable, that the Waters begin to gather immediately after the Child turns, for as the Head takes up less
Space

Space at the Neck of the Womb, than the Buttocks, Legs and Thighs, the Membranes are more at Liberty to fall down by the Weight of the Water, and forcing of the Mother, by the Contraction of the Abdominal Muscles.

WHEN Matters arrive at this Period, it is Time to consider every Thing that may enable us to assist both Mother and Child in their respective Exigencies; and hereto it is of great Advantage to be well acquainted with the Form of the Pelvis.

As it was before observed that the Reader is supposed to be an Anatomist, it would be therefore needless to give a Description of the particular Bones and their Articulations; but this much may not be amiss, that is, to advise every one who intends to practise Midwifery, to make himself as well acquainted as he can, with the different Shape of the Pelvis of every Skeleton he sees, by introducing his Hand between the Os Coccygis and Ischium, and by that means to make the nicer Observation of the different Forms of that Opening; this Observation will be of Use in the Skeleton of

Males

Males as well as Females ; For though in general, Females have the larger Pelvis, yet they differ in respect of each other, in the same manner that those of Men do ; some having the Pubis very near the Sacrum, so as to make the Passage between them very narrow ; others having the lower Part of the Sacrum and Coccygis, inclining into the Bottom of the Pelvis, so as to make that Part narrow ; in short the Reader will find by accustoming himself to compare the Shape of his Hand to that of the Entrance into this Cavity, that he will be much the better able, upon examining a Woman in Labour, to judge of the Shape of her Pelvis, and consequently how to conduct himself.

IN the next Place, it will be of great Advantage to the Operator, to consider the lax, pliable Texture of the Parts of a new born Fœtus ; for the Bones of the Cranium have no Sutures, but are very thin and soft at their Edge, that they may slip over each other, to contract the Size of the Head, in its Passage through the Perforation of the Pelvis, to which the Opening of the Fontanell greatly contributes. The Articulations of the Limbs
are

are extremely flexible, their Ligaments being extraordinary long, and the Epiphyses and Apophyses of the Bones, composed of the softest Cartilages; and were it not for this Contrivance, a Child in a preternatural Situation, could never be extracted.

Now we are to consider the natural Situation of the Child in Time of Labour, with a little more Circumspection than has hitherto been observed; for hereon depends in a great Measure, either the Happiness or Misery both of Mother and Child; and for want of a strict Regard to this Circumstance, many natural Labours have become in the End, very tedious and dangerous; nay, in all Probability often mortal to both. When a Child presents itself naturally, it comes with the Head foremost, and (according to all Authors that I have seen) with its Face towards the Sacrum of the Mother, so that when she lies on her Back, it seems to creep into the World on its Hands and Feet. But here I must differ from this Description in one Point, which at first Sight may probably seem very trivial: The Breast of the Child does certainly lie on the Sacrum of the Mother,

ther, but the Face does not; for it always (when naturally presented) is turned either to the one Side or the other, so as to have the Chin directly on one of the Shoulders.

THIS every Practitioner in Midwifry has in his Power to be certain of; yet it may not be amiss to prove it to the Reader, who has not as yet practised, by plain Reasoning: First, it is evident that the Head, from the Os Frontis to the Occipitis, is of an oblong Figure, being very flat on each Side: Secondly, that the Body, taking in the Shoulders, makes still a more oblong Figure, crossing that of the Head; so that supposing the Woman on her Back, the Head coming into the World, is a Kind of Elipsis in a vertical Position; and the Shoulders of the same Form in an Horizontal Position: Thirdly, that the Pelvis is of an Elliptical Form, from one to the other Hip. Now if the Child presented with the Face to the Sacrum, the oblong Figure of the Head must cross that of the Pelvis; and if it were possible that the Head and Pelvis could be formed to each other, so as to admit of its Exit, it must of Necessity, from what has been said above, acquire

acquire another Form for the Admission of the Shoulders ; which is very different from the constant Uniformity in all the Works of Providence.

FROM what has been said, it is evident that when the Child is turned, so as to have the Chin on one Shoulder, all the above Objections are removed ; for the Head and Shoulders are on a parallel Line, in respect of their Shape, and at the same Time, both answer the Form of the Passage from the Pelvis.

FOR want of this Knowledge, many Labours prove dangerous and tedious, that might have been very successful, had they been committed to Nature. For it is too common for Midwives, immediately on the Eruption of the Waters, to move the Child's Head to and fro, in order to facilitate its Exit ; and this jogging, may very easily alter the Position of the Head, so as to make it what is generally esteemed natural ; hence the Crown of the Head, near the joining of the coronal and sagittal Sutures, are by the Efforts of the Mother, forced against the

Os

Os Pubis : When this happens, the Women tell you, the Head is fixed on the Share Bone, which in Reality, is the Interfection of two Elipfes, namely, the Head and the Passage from the Pelvis ; but the Misery does not end here ; for the repeated Throws of the Mother, forcing the Head against the Pubis, at the Point above-mentioned, pushes it so as to make the Lambdoidal Bone lye on the Back, whereupon the Face presents itself ; the Consequence whereof shall be mentioned in its proper Place, when we treat of preternatural Deliveries.

IT is to be hoped that this Opinion, being founded on Theory, and confirmed by Experience, will meet with few Opponents ; and without doubt, the due Application of it will be of infinite Use.

BUT to return to the Labour, where we left the Pains beginning and the Waters gathering, at which Time it is necessary to examine the Patient, in order to observe whether Matters be going right ; and if otherwise, to give all proper Assistance. This Operation which is called Touching, and
well

well worthy our Consideration, is thus performed: The Patient must lye in the same Manner as if she were bringing forth the Child; but as that is very different in different Countries, and by different Women in the same Country, it may not be improper to say something on that Head. In *France* the Patient always lies on her Back, with her Head raised, her Heels approaching to her Thighs, and Knees extended from each other; this Posture may answer well enough in natural and easy Labours, but where there is any Difficulty, 'tis the worst that can be contrived; for as the Pudendum is on a Line with the Bed, it is very difficult to turn the Hand upwards to the Uterus, from the Impossibility of moving your Elbow lower than the Horizontal Direction of the Vagina, which is parallel to the Bed; and the Difficulty is still more apparent when there is a Necessity for instrumental Operations. Mr. DEVENTER has invented a perforated two armed Chair, whose Back may be lowered or raised at Pleasure, which he strenuously recommends for Women to be delivered in, of which he has given us Figures in his Book of Midwifry; but here the Parts are too
much

much exposed to the Coldness of the circum-ambient Air, which is capable of doing great Mischief, and therefore by all Means to be avoided ; besides it is impossible to come properly to your Business through a Hole in the Seat of a Chair. Both in *England* and *Ireland*, various are the Postures that Women are delivered in, namely, on their Back, Side, Knees, standing, and sitting on a perforated Stool ; the Side is certainly the most advantageous Posture for natural Labours ; for the Patient is less subject to Cold, the Os Coccygis is not hereby pressed inward, so as to hinder the Exit of the Child ; and as the Operator and Standers by, are by this Means behind her Back, she is less subject to be disturbed by their Remarks and Whispers. The most convenient Posture for preternatural Deliveries is on the Knees, which shall be particularly described, when we treat of the Operations necessary thereto.

As the Side is the Posture for natural Deliveries, we will suppose the Patient in that Situation, with her Face inclined towards the Breast, and her Thighs as close as may be to the Belly ; the Buttocks near the Edge

of the Bed, and the Back in an oblique Direction from that to the Middle of the Bolster ; always observing to have a Pillow, or something of that Kind between her Knees.

IF the Patient lies on the Right Side, you must examine with the Right Hand, therefore this is the most convenient ; but sometimes the Situation of the Bed, or the Patient's Inclinations are such, that she will lye on the Left ; therefore you must be equally expert in using the Left Hand.

WHEN you find the Patient's Pains increase, and the Space of Time between them decrease, it is proper to whisper the assistant Women to make her lye down in the above Posture; lest your desiring it aloud might shock her ; especially if it be her first Child ; you must also avoid Touching her till she is actually in Pain, for your approaching to her will be much less terrible at this Time, than when the Pain is absent ; for want of these prudential Observations, the poor Woman is often terrified to such a degree, that her Pains quite leave her.

Now

Now the Operator must come to that side of the Bed where the Patient lies, with her Back to him, and with all possible Decency and Deliberation, either sitting or kneeling, whichever he finds most convenient, must put his Hand well greased with fresh Butter or Oil, under the Bed-cloaths, without uncovering any Part of the Patient ; and introducing his fore-finger into the Vagina, must find out the Orifice of the Womb. Here it is necessary to consider the Texture of the Vagina, and the Situation of the Womb in respect of the Vagina ; otherwise you will expect to find the Orifice at the Extremity of this Canal, which is a great Mistake ; for it is mentioned in the Beginning of this Treatise, that the Direction of the Womb in respect of the Vagina, made an obtuse Angle ; wherefore the Finger must be a little bent towards the Bladder, and in this Direction, going forward about three Inches, you will find a Protuberance, as it were, on the Side of the Vagina, which is the Orifice of the Womb ; though this be the Extremity of it, yet so loose is its Texture, as has been already described, that if the Finger be kept

extended, it will go three or four Inches beyond the Orifice.

FROM the various Dispositions of this Orifice in Time of Labour, may be deduced many useful Discoveries ; namely, if on the first Examination it be somewhat dilated, its Edges flat and thin, that the Patients Efforts seem to affect it considerably, and that it is very near the Pudendum, you may expect an happy Event. But on the contrary, if the Orifice be difficultly discovered, if it appears prominent, hard and thick, and all the Circumjacent Parts dry and contracted ; there is great Reason to dread the Consequences ; for its being distant from you, shews that the Child is across in the Womb, which extending it from Side to Side, pulls up the Orifice, and makes it so much the more distant from your Finger ; its being thick and hard, shews that it wants the Pressure of the Head, to dilate and stretch it ; and the want of Moisture must be a great Obstacle to its Relaxation.

WHEN

WHEN the Labour is somewhat more advanced, the Manner of the Waters gathering, will be also a Guide : As the Orifice increafes, the Weight of the Water forces the Membranes through it, which is called the Gathering of the Waters : When this appears in an elastic, round, regular Bag, it is a good Sign ; but when long, foft, and as it were like a Gut, it is bad ; for here it wants the uniform Shape of the Head to hinder the Membranes from falling down more on one Side than the other. The more you perceive of thefe Appearances, the more you are under a Neceffity of watching every Alteration, in order to adminifter timely Affiftance.

WHEN the Womb is fo much dilated as to give Admiffion to the Finger, you muft examine between the Pains for the Situation of the Child ; for in the Time of Pain, the Membranes are fo tenfe from the Prefsure of the Water, that the examining for the Head, would endanger their Eruption before the proper Time ; if you cannot find the Head, which will be difcovered by its round Form and Hardnefs, and perhaps the Pulfation of the Fontanel, it is certain that the Labour

will be contrary to Nature, and that the Patient must be delivered, as shall be hereafter directed; but if the Head be easily perceived, attended with the happy Circumstances already observed, the Labour will be expeditious, and require little or no Help, either for Mother or Child; but as it seldom happens, that all these good Appearances concur, even in natural Labours, we shall endeavour as much as possible to make up those Deficiencies.

THOUGH the Child may be well Pitched, as it is usually termed, yet the Labour may prove very tedious, from the defect of some Circumstance already taken Notice of: First then, from the Weakness of the Mother, not being able to assist her Pains by forcing downwards; here she must be supported, rather by strengthening Broths, than heating Cordials, which are too often given by ignorant Women; but if her Spirits be much exhausted, and that her Pains grow very short, and of little or no Advantage, then an Opiate is of surprising Service; for while the Medicine operates, the Patient is lulled, and the Pains quite removed; but when the Narcotic Quality is gone off, she revives
with

with new Vigour, and the Pains grow strong and lasting ; which frequently accomplishes the Work in a very short Time.

SOMETIMES Costiveness retards the Labour ; for Pregnant Women, especially towards the latter end, are much this way inclined ; and it frequently happens, that some do not go to Stool in a Week before Labour ; here the Intestinum Rectum must be much stuffed with Fæces, which certainly hinders the Exit of the Child ; this Evil must be removed by a Clyster, or more if thought necessary ; this not only promotes the Excretion of the hard Fæces, but by its stimulating Faculty, excites the Pains, and forwards the Expulsion. The Person who is to administer this Clyster, must be desired to introduce the Pipe gently, and with Caution, inclining the End of it rather towards the Sacrum, lest by rubbing it against the Side of the Rectum next the Child's Head, the Gut might be bruised between these two hard Bodies, which will cause a very uneasy Sensation, and a Tenesmus after the Birth, and perhaps grievous Symptoms, by destroy-

ing the Patient's Rest, at this Time so necessary for her Recovery.

WHEN Labour is retarded by the thickness and hardness of the Orifice which hinders its Dilatation ; it must be assisted by introducing, first the Fore-finger into it, just before the Pain begins, for if you wait till the Pain is somewhat advanced, the Membranes and Water will be pressed so close to the Neck of the Womb, that the Introduction may endanger the breaking of them before the proper Time ; when the Finger is thus introduced, the Orifice must be gently dilated, by moving it round its internal Surface, and when that has made some Progress, by introducing a second, and so a third, till it be sufficiently dilated ; which is known by the Membranes breaking, and the Head taking up the Place of the Waters ; this Dilatation must be continued till the Orifice gives Passage to the Head. This Motion of the Fingers must be performed with the greatest Caution, otherwise the Edge of the Orifice may be torn, which will produce miserable Consequences, such as violent Pain, Inflammation, Ulceration, Cancer, &c. as I once found

found in a Woman who sent for me on Account of her After-pains, as she called them, continuing much longer and more violent than usual ; upon Inquiry, I was told that she had a very difficult and tedious Labour, and that the Midwife was obliged to work like a Horse, as they expressed it, before she could deliver her ; when the Discharge of the Lochia ceased, which was sooner than usual, by Reason of her extraordinary Pain ; it was followed by that of a foetid, sanious, black Ichor, which gave me terrible Apprehensions ; however, in some Time she was cured, by the Help of anodine deterfive Injections, and taking some few Medicines of the hysterical Tribe, by the Advice of her Physician. Some Time after she conceived, and employed me to lay her ; whatever her Labour might have been before, it was now extremely difficult ; for upon examining, I found a large callous Cicatrix on the Orifice, which made me dread the Impossibility of its ever being sufficiently dilated ; which really did not happen till after four and twenty Hours close Application. This proves that all the violent Symptoms which happened after her late Labour, were owing to the Ignorance

rance of the Midwife, by lacerating the Orifice of the Womb.

THE Dryness and Constriction of the Parts, is another Hindrance to the speedy Delivery of the Woman in Travail ; though this does not often happen, yet I have known the Vagina so dry, and contracted to such a Degree, that it was with Difficulty it would give Passage to the Finger ; in this Case emolient Clysters, and Injections into the Vagina are of great Use ; I have found great Advantage from a Decoction of Linseed and Oil of Almonds, injected frequently into the Vagina.

THE Os Coccygis being too much turned into the Pelvis, often impedes the Expulsion of the Child ; this Difficulty is removed by forcing it back : The usual Direction for this Purpose, (even by DEVENTER, who boasts so much of the Rules he lays down for the right Management of this Bone, which he esteems as one of the greatest Discoveries he has made) is to introduce one or two Fingers into the Vagina, with the Palm of the Hand facing the Anus, and fixing the Fingers on the End of the Coccyx, push it back as much
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as possible. I shall humbly beg leave to observe, that one or two Fingers, which is the most that can be used on this Occasion, can have but very small Force in this Position, and also that the Space which they take up in the Vagina, will produce as much Difficulty as the Crookedness of the Os Coccygis. These Considerations induced me to try another Method, which answered the End much better ; that is, to introduce the Thumb, being oiled, into the Anus, and fix it on the Point of the Coccyx ; then apply all the Fingers of the same Hand, on the lower Part of the Os Sacrum, whereby making a Counterpressure, the Coccyx is pulled out by the Thumb, as far as is thought necessary, with great Ease.

THE next Difficulty to be surmounted, which indeed is a very great one, is when the Passage is hindered by the Interposition of the Os Pubis ; the true Cause of this Evil has been already related, and upon the Knowledge of that Cause, depends the easy and safe Method of relieving both Mother and Child : In these Circumstances, the Face is infallibly on the Sacrum, and there it is likely to remain

main till the Child is destroyed, and the Mother in great Danger, (except the Head be very small or the Passage very large) if not replaced in its natural Posture after the following Manner; which I declare to have practised several Times with Success: When the Head is thus fixed, there is a considerable void Space in the Pelvis, on each Side of it, which is easily conceived from its oval Figure, and that of the Head intersecting it; you must Thrust your four Fingers into one of these Spaces, having the Palm of the Hand next the flat Side of the Head; they must be forced in as much as possible, without hurting either Mother or Child, then turn your Hand till you find the Back of it directly on the Os Coccygis, and the Child's Head will turn with it, till its Chin is over its Shoulder; this done, the Obstacle is absolutely removed, and the Child will come happily into the World by a few Pains.

THOUGH the last Pains which are to bring the Child into the World, ought to be, and generally are the strongest and of the greatest Duration; yet it sometimes happens, either by long Labour, natural Weakness, or the
Strength

Strength being impaired by some Disorder ; and also the Child's Head being over large, or the Bones of the Cranium being too much ossified, or lastly, for Want of sufficient Moisture ; that the Mother is not able to atchieve this last Undertaking ; therefore she must be assisted by Art ; which is done with great Ease, if the Application be not too late ; for Delays here are the most dangerous ; there being a great Compression of the lower Side of the Vagina, and Sphincter Ani, between the Child's Head and the Os Sacrum ; and also of the Sphincter Veficæ and the upper Part of the Vagina, between the Head and Os Pubis ; the Consequences of which are very obvious to the Anatomical Reader ; for he must consider the Degree of Relaxation in those Parts, as preparatory to this Labour ; and that their component Vessels must at this Time be perfectly turgid, with fermenting Blood, by the Straining and Pain of the labouring Patient ; which will inevitably render the circumjacent Parts that are free from the above Compression, obnoxious to the most violent Inflammation, and in a very short Time, great Swelling of the Parts before and behind the Head. A Mortification of the

Part

Part compressed, and consequently Death. When Matters come to this Period, they are to be reckoned in the Number of preternatural Labours, where we shall treat of this, more at large; and at present return where the Mother and Child may be easily assisted in their respective Exigencies.

WHEN the Child is very near coming into the World, with the Top of its Head just at the Labia Pudendi, and that there is no Obstacle to its Expulsion, but either the Weakness of the Mother, the Size or Inflexibility of the Cranium, or the Dryness of the Parts; the Fore-finger must be well greased, and introduced into the Anus, with the Back of the Hand towards the Sacrum; when it is thrust in as far as may be, by bending, you will easily fix it under the Child's Jaw-bone, near its Articulation with the Cranium; thus the Mother's Efforts may be very much assisted by pulling the Child forward with the Finger bent under its Jaw; which commonly in this Case, answers the End much better than any Crochet, and (I need not say) with more Ease and Safety, both to Mother and Child.

THERE

THERE are many Defects both in Mother and Child which are Obstacles to its Expulsion; but as they cannot properly be brought under the Head of natural Labours, we shall take Notice of them when we come to Labours contrary to Nature.

HAVING observed the principal Difficulties that natural Labours are obnoxious to, we shall now take a general View of the Patients Circumstances, from the Beginning to the End of Travail, with Directions for her Management therein.

TOWARDS the latter End of the ninth Month of Pregnancy, the Patient imagines that every bodily Disorder which affects her, is her Labour; and as at this Time the Muscles of the lower Belly are much distended; and a great Weight on the Bladder and Rectum; the poor Woman must be subject to great Uneasiness and frequent Pains, which she often mistakes for her Labour, wherefore she sends for the Person who is to deliver her, who must take great Care not to be deceived also; for should he from the excessive Complaints of the Patient, imagine her
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in Labour, when ſhe really is not, and do any Thing to forward it, the Conſequence would be very bad, by bringing that to paſs, which Nature was not prepared for. To prevent this Miſtake, we ſhall endeavour to deſcribe the true Labour as exactly as is poſſible.

THE Pregnant Woman generally has for ſome Days before her Labour, a Diſcharge of a thick Mucus from the Vagina, at which Time all the private Parts are ſwelled, yet notwithſtanding they are in a State of great Relaxation. About a Day, or perhaps two or three before the Labour begins, ſhe perceives an extraordinary Uneaſineſs ; and when the Labour really begins, a Pain in her Back, about the Region of the Loins, which laſts not long, but returns again, after perhaps half an Hour's Intermiſſion, with double Violence ; theſe Pains increaſe as they return, extending their Limits on each Side in a circular Manner, 'till both Points meet at the Navel ; then the Pain is ſo violent, that ſhe can no longer conceal it ; ſhe is now obliged to ſtrain and force downwards at every Paroxiſm ; the Pain alſo extending itſelf downwards, and uniting at one Point, which is the Orifice

Orifice of the Womb ; when you see Matters arrive at this Period, the Pulse being very high, the Face red, the Patient frequently seized with a Trembling, as if in an Ague Fit, you may be sure the Labour is present ; till about this Time she must not be examined ; and if there be Reason from the Diagnostics before-mentioned, to expect an easy and happy Delivery, the less the Parts are handled, the better, for it frets and stimulates them at this Time, being very hot and susceptible of Inflammation ; yet if there be a Necessity for it, from some Difficulty already taken Notice off, let it be done with all the Delicacy and Tendernefs that can be used ; committing every Thing to Nature, as far as the Strength of the Patient will admit, rather than using any Violence ; for in the most favourable Labours, poor Women endure as much Pain as Mortals are well able to undergo ; and how wickedly cruel and hard hearted must he be, that would do any Thing except of Necessity, to increase their Misery ?

At this Time she must take no solid Food except Bread ; Broth or Jelly being the most proper Nourishment ; her Drink should be

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such as will promote a small Degree of Warmth, and at the same Time not very heating ; such as Sack-Whey made strong or small as there is Occasion ; giving now and then some Spoonfulls of cold Cinnamon or Pennyroyal-Water, by Way of Cordial when the Pain seems to grow languid.

You must stay nigh the Patient, to be ready on the Eruption of the Waters, for then the Hand is of Service in the most easy Labours ; for the same Efforts that break the Membranes, thrust the Head into the Orifice, which is not yet large enough to give it Passage without Violence ; wherefore the Assistance of the Hand must be administered in this Manner : It must be introduced as the Pain begins, and as the Head is forced down, endeavour to thrust the Edge of the Orifice up ; and do all that is possible without committing Violence, to make the Orifice quite pass over the Head ; by this Means, the Labour is not only hastened, but the present Pain much lessened ; for as there is no counter Resistance to the forcing of the Child's Head against the Orifice, but the Ligamenta Rotunda, they are violently stretch-
ed,

ed, which causes such violent Pain in the Groins and down the Thighs ; this the Hand evidently prevents ; and very often a Prolapsus Uteri, or at least of the Vagina is hereby hindered.

THOUGH in general, the Membranes should be left to break of themselves, yet it sometimes happens, that from their extraordinary Thickness, the Mother's Efforts are not sufficient for that Purpose, notwithstanding the Orifice be dilated to its full Extent. When the Operator is perfectly convinced of this, he may with Safety break the Membranes, and the Child will immediately follow.

Now the Pains grow beyond all Comparison greater and more lasting than before, and the Top of the Child's Head begins to appear without the Private Parts. Here you must have both Hands ready, one at each Side, to take hold of the Head, when it comes as far as its Ears, losing no Time, but pull the Child forward, lest if you be slow, the Orifice may close about its Neck ; if the Shoulders do not come readily, put in a Finger under the Axilla, and bring it forward.

When the Shoulders come forth, there is no Necessity for any Hurry in bringing forth the Child, but on the contrary; for if the Funis should be rolled about its Neck or Body, so as to shorten the Length of it, it might be hereby broke, or the Placenta forcibly disunited from the Womb, which would occasion an immoderate Flux of Blood.

THE better to accomplish these Matters, the Operator must be seated at the Bed-side, within Reach of the Patient, having a large Sheet or some such Cloath doubled before him; when the Child is brought forth, he must lay it on his Lap, as far from the Mother as the Length of the Funis will admit; and immediately examine if there be another or more Children; if there be, you will perceive it by the Mother's Pains continuing, and the gathering of new Waters; being convinced that there is a second Child, the Membranes must be immediatly broke without waiting for Pains, there being sufficient Dilatation already; and introducing the Hand into the Womb, to find out the Feet, the Child must be brought forth by them.

WHEN

WHEN one Foot is discovered, the Fingers must be flipt up the Thigh to the Parts of Generation, and so down the other Thigh, till there is Hold of both Feet: Without this Precaution, one may take hold of a Foot of different Children, which must be both torn off, before they could be thereby brought forth. Having Hold of the Feet, draw them forward till the Hips appear, then observe whether the Child's Face or Back be next the Mother's Belly; if the Face, it must be turned as it is drawn forward, so as to have it towards the Mother's Back; this Turning must be performed in its Passage from the Hips to the Breast; when it is come thus far, introduce a Finger at one Side into the Vagina, where will be found the Child's Hand, lying up along the Side of the Head; this must be brought forth, by bending the Finger about it, as near as possible to the Articulation of the Ulna and Humerus; and by drawing it gently forward, it will easily be extracted, on Account of its surprizing Flexibility, as has been observed, in recommending the comparative Anatomy between a Foetus and an Adult; the same Directions must be observed, with regard to the other Hand; this

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this done, the Head only remains to be extracted, which must be done very cautiously, and without Loss of Time ; lest the Orifice should close round the Neck, which would be a very dangerous Circumstance, as shall be remarked in its proper Place ; therefore immediately after the Hands are brought forth, before the Body is drawn any more forward, the Operator must slide his Hand along the Child's Breast, putting his Forefinger into its Mouth, in order to hinder the Coccyx from stopping its Exit, from its curved Form coming under the Chin ; but this Impediment, and that by the Back of the Head coming against the Pubis, are avoided, by turning the Head towards the Shoulder, which may be easily done by the Finger already in its Mouth. The Hand under the Breast will support the Child's Weight, while the other must be layed on its Back, with two Fingers bent over each Shoulder, on each Side the Neck ; thus it must be drawn forward, moving it from Side to Side, till it is completely extracted. If there be more than two Children, all after the first are brought away by the same Method.

THE Method of extracting the second immediately after the first Child, is never practised by the Female Adventurers in the Art of Midwifry ; for they leave it all to Nature ; cutting the Funis, and tying it to the Mother's Thigh ; they wait for a new Labour, and the Waters gathering, which the poor Patient is seldom able to undergo, being much weakened and fatigued by what she has already suffered ; yet it sometimes happens, that she is a full Week between the bringing forth of two Children, and frequently two or three Days.

CONSIDER now the melancholy Situation of this unhappy Patient, from the Ignorance of the Midwife ; First, her Disappointment is very great, from the Assurance of having got over her Pains, the Hopes of being immediately laid in a clean easy Bed, which is the most comfortable Thing in the World, to a new delivered Woman ; the Fear and Dread of going through the Miseries that she had but just overcome ; and probably her present Weakness makes it appear infinitely the more terrible ; but suppose the second Labour should last a Week or more, which is well

known often to happen ; how must the whole animal Oeconomy suffer, from her want of Rest for so long a Time, which is certainly hindered by the Pains which never cease, more or less ? How must the Mass of Blood be viciated by the Placenta of the new born Child, which is now intirely an extraneous Body, and extremely susceptible of Putrefaction ? Hence Suffocations, hysterical Affections, Fever, Dilirium, Convulsions and Death. I delivered a Woman once of a second Child, the third Day after the first, who had so violent a Fever, and raved to such a Degree, that the whole Time of the Operation, which was at least twelve Minutes, she did nothing but sing : notwithstanding she must have had a great deal of Pain, for the Orifice was contracted to the Diameter of half a Crown. But to proceed :

THE Patient being delivered of the Child, the next Thing to be done, is to remove the Placenta, or After-birth, so called from the Necessity of its following the Birth. If there be but one Child, the Funis or Navel String is not to be cut, till after the Extraction of the Placenta ; if more than one, it must be cut

cut

*Mr. B. The patient may with great safety
be cut before the extraction of the placenta
as in the case of a mal-position, &c. by both of
the hands of the Placenta is torn &c.*

cut before the Extraction, to remove the born Child from any Inconvenience ; but no Placenta must be extracted, till all the Children are born, for that would cause a dangerous flux of Blood.

THE Child, as was said before, must be laid on the Operator's Lap, or on the Bed, as far from the Mother as the Length of the Funis will admit ; which he must take in the right Hand, about six Finger's Breadth from the Pudendum, and roul it twice or thrice about his Finger ; then the first and second Fingers of the left Hand must be thrust into the Vagina, by its Direction ; and the Patient stopping her Breath and forcing as if she were at Stool, the Navel-string must be gently pulled forward as she forces, the Operator rather waiting for her Expulsion of it, than being too desirous to extract it ; for pulling the Funis so as to extract the Placenta forcibly, may probably cause a Flooding ; or perhaps break the Navel-string whereby the Placenta would be very difficultly brought forth ; therefore let him just pull it sufficiently to make it incline forward still insisting on the Patient's forcing down, which
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if ſhe be not able to do of herſelf ſhe muſt be compelled to it, by putting a Finger into her Throat, which will cauſe a Preſſure of the Diaphragm, and the Muſcles of the Belly, by her Efforts to vomit ; by theſe Means it is commonly brought forth in about five Minutes. When it comes away by Expulſion, it always is whole, but it is ſubject to be broke, and Part of it left in the Womb, if any Violence be uſed for its Extraction.

MOST Authors give a ſtrict Charge to loſe no Time in the Extraction of this extraneous Body leſt the Orifice of the Womb ſhould contract and obſtruct its Paſſage ; and for this Reaſon they adviſe the Introduction of the Operator's Hand into the Matrix; and by inſinuating the Fingers between it and the Placenta, to cauſe their Separation, the Manner of doing which, ſhall be preſently deſcribed. This Fear of the Womb cloſing, makes many Operators too haſty, which often produceth fatal Accidents.

THE firſt and moſt common is breaking the Funis, which is effected with very little Force : for though it be of the Thickneſs of a Finger,

a Finger, yet its component Fibres are very few, for by drying, it dwindles to a very small Size : And another Thing that makes its Resistance very insignificant, in Proportion to its Thickness, is, that the three Blood-vessels in which its Strength chiefly consists, are not of an equal Length, which is apparent from the Circumvolutions of the Arteries round the Vein, hence it is evident that the Vein must be broke, before the Arteries are in the least put on the Stretch. Now the breaking of this String produceth the following Evils ; namely, an immoderate Flux of Blood by the Umbilical Vein ; the great difficulty of extracting the Placenta without its Direction and Assistance ; the intollerable Pain caused by the (then necessary) Introduction of the Hand into the Womb, and the Danger of not removing the whole Substance intirely ; and lastly, whatever Disorder the Patient may be subject to, during her Lying-in, will certainly be imputed to this Mischance.

Secondly, the over-hasty Extraction of the Placenta, may cause an immoderate Flux of Blood, by the immature Dilaceration of the
Uterine

Uterine Blood-vessels ; for when Nature does the Work, the Contraction of the Womb closes the Mouths of the Vessels, at the same Time that it discharges itself of the Placenta. Thirdly, it may cause a Prolapsus Uteri, in a manner so evident, that it needs no Description.

THE Reason why we Operators run the Risque of committing these Errors, is, lest the Orifice of the Womb should refuse a Passage to the Placenta, by its speedy Contraction. I shall therefore, endeavour to prove that the Orifice is not capable of so speedy a Contraction, as is generally imagined.

IT is universally allowed, that the Efforts of the Mother in Time of Travail, tend chiefly to the Dilatation of the Orifice ; it is also undeniable that these Efforts continue after the Child is born, untill the Expulsion of the Placenta is compleated ; hence it follows, that till after this Time the Orifice is incapable of absolute Contraction. Besides it is well known that the Placenta has often been extracted, one, two, or three Days after the Birth of the Child, when it has been left be-
hind

hind by some Malpractice of the Female Midwife; and this Extraction performed by the Introduction of the whole Hand, through the Orifice into the Matrix. Hence it must follow, that if the Orifice be wide enough to receive the Hand, some Days after the Birth, there certainly will be very little Danger of its closing in a Quarter of an Hour, so as to hinder the Expulsion of the Placenta. I shall beg the Reader's Leave to add one Circumstance more to confirm this Argument, which seems to put it beyond all Controversy; namely, that Nature designed its Expulsion by the Efforts of the Mother; which is proved by real Matter of Fact; for there are constant Instances of Women bringing forth both Child and Burthen without any other Assistance than that of Nature.

THIS happens chiefly to those who have Bastards, Women at Sea, and in Camps.

NOTWITHSTANDING what has been said on this Subject, it must be allowed that Mr. DEVENTER, whose Authority has universal Approbation, strenuously adviseth the constant Extraction of this Burthen by the Introduction of

of the Hand ; and very much condemns the pulling it forth by the Funis ; therefore we must endeavour to remove his Objections to this Praiſtce, which he allows to be the moſt general in all Parts of the World.

FIRST he ſays that immediately after the Child comes forth, you may thruſt not only the Hand but the Arm alſo into the Womb, without giving any Pain, the Orifice being at this Time ſufficiently dilated ; whereas if you try different Means, as deſcribed by other Authors, it will in the mean Time, be ſo much contracted, that the Hand cannot paſs it without great Pain. Here I allow, that were there a Neceſſity for putting the Hand into the Matrix, the Orifice is at this Time more dilated, than it would be in ſome Time after ; but our Author is certainly miſtaken in the moſt material Part of his Argument ; for it is not the paſſing the Hand through the Orifice of the Womb, that gives the Patient ſuch great Pain ; but it is its paſſing through the Bones that make the opening into the Pelvis, which I may venture to ſay, never alters as to its Size : This indeed does give very extraordinary Pain, which is the chief
Reason

Reason why the Operation should be avoided, when there is not a Necessity for it.

AGAIN he says that immediately after the Delivery, not only the Orifice, but the Matrix, is sufficiently relaxed ; and that after some small Time, it contracts by Degrees, and intirely incloses the Burthen, so that from a flat soft Cake, it becomes hard and oblong, and as it were contained in a Purse with running Strings drawn up tight about it ; which makes the Extraction still more difficult. These Accidents may certainly happen to an unskilful and dishonest Midwife, who by pulling the Funis too forcibly, might break it ; and rather than acknowledge her own Ignorance, by calling for Assistance, would pretend that the Patient was safely delivered. But all this could not possibly happen in the longest Time that is necessary for its Expulsion ; which, if it cannot be brought to pass in a reasonable Time, suppose ten Minutes, which perhaps does not happen to one Woman in five hundred, it is then Time enough to put the miserable Patient to the Torture of introducing the Hand, and

and thereby separating it from the Fundus Uteri.

OUR Author also says, “ that by this Method of putting his Hand into the Womb, he discovers whether there be more Infants to come forth ; if there be any Mole or other extraneous Body”. This I own is a very laudable Cause for introducing the Hand into the Womb, where the Passage into the Pelvis will admit of it without Pain, which is a Happiness many Women do not enjoy ; in this Case we may content ourselves by searching with two or three Fingers, immediately after Delivery, when the Womb is within an Inch of the Pudendum, from the great Distention of the Vagina, which grows short as it widens.

ONCE more I must bring Nature for my Advocate, which never intended that the Placenta should be separated from the Uterus, by the Intervention of the Hand, as was proved before. Moreover, though there were no Pain in the Introduction of the Hand, yet Mr. DEVENTER's Practice is bad on other Accounts

Accounts as I shall here endeavour to demonstrate.

IN order to make this Matter more clear, it is necessary to consider, that the Placenta is a most soft, spongy, parenchymatous Substance, easily divided, and broke by the least Handling; we must also consider, that in the Expulsion of the Burthen, the Action is intirely in the Matrix, by means of the Diaphragm and abdominal Muscles pressing it, which forces out the Placenta as excrementitious; and as this Action is uniform, all Parts of the Placenta are equally pressed, therefore it comes out one intire equal Body, with its Surface next the Womb perfectly smooth; which shews that there is no Part of it left behind.

Now as for the Extraction; suppose the Hand introduced into the Womb, even without giving the Patient any Pain; it is a Difficult Matter, in the first Place, to find out the extreme Circumference of the Placenta, so as to begin the Separation without break-in through the Substance of it; and consequently leaving some Fragments of it behind;

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the Effects of which shall be presently taken Notice of : Secondly, when there is a Separation made of a small Portion of it, it is continued by putting the four Fingers between it and the Womb, and by pressing them different Ways at the same Time, and in a progressive Manner, till the whole is completed.

HENCE it follows, by an exact Comparison, that by this manual Operation, the Efforts of Nature are quite rejected and rendered useless : Secondly, it is almost certain that the alternate Motion of the Fingers, between the Womb and this soft Body, must tear and mangle it in such a Manner, as inevitably to leave some of it behind, which is still confirmed by the Inequality of the Action, in Comparison of that in the Womb.

IT may not be amiss, by way of Excuse for detaining the Reader so long on this Subject, to mention some of the Disorders consequent to the leaving any Part, how small soever, of the Placenta in the Womb : First then, it may cause a great Flooding as it is generally called, by hindering that Contrac-
tion

tion of the Matrix, whereby the Mouths of the Vessels are closed : Secondly, by corrupting and communicating its Effluvia to the Mass of Blood, it is capable of producing almost any Disorder that the animal Oeconomy is subject to; it also often causes Impostumations, Abscesses, Scirrhus, Cancer, Gangrene and Mortification in the Womb itself; wherefore it is certainly incumbent on us, to consider this Matter with more Circumspection than at first Sight may perhaps seem necessary.

THOUGH this Practice of extraction must be condemned, as constantly used in natural Cases, yet where the Case is preternatural, it is absolutely necessary; namely, when by injudicious Management the Funis is broke; when the Patient is so weak as to be incapable of giving any Assistance, and that the Operator does not think it safe to depend on the Strength of the String; when the Child has been some Time dead, and the String thereby become rotten, and the Placenta corrupted; and beside these, in many other Circumstances that may occur to the prudent Operator; always observing, that it is better

to depend on Nature, while there are any reasonable Hopes of Success, than too precipitately to have Recourse to Art.

HAVING endeavoured to remove all Difficulties, let us suppose the Patient delivered of the After-burthen ; which must be separated from the Child also ; this is done by making a Ligature about three Inches from the Navel, on the Funis, and then cutting it with a Pair of Sizzars an Inch beyond that, towards the Placenta.

IMMEDIATELY after the Expulsion of the Placenta, there follows a Discharge of Blood, whose Quantity differs in different Women, some having very large Discharges, without being in any Danger ; others very small and no bad Symptoms ensuing ; therefore the concomitant Symptoms must be the Guide. If the Patient has had Children before, she will complain if the Quantity exceeds what was usual ; and though it be her first Child, there are always present those who have had Children, that will inform the young Practitioner ; together with this, the usual Symptoms that attend extraordinary Losses

Losses of Blood, will be a sufficient Conviction of her Distress, and Necessity for speedy Relief. If the Placenta be broke, or the Surface that adhered to the Womb unequal, it is next to a Certainty, that some Part of it remaining, is the Cause of this Evil; and though it should not be so, it is necessary, immediately to introduce the Hand into the Womb, to try if there be any extraneous Body, which might hinder its Contraction; be it Part of the Placenta, Mole, grumous Blood, or any Thing else, it must be instantly extracted, whereupon the Flux will cease.

If there be nothing found amiss in the Womb, and that the Flooding still continues violent, the Disorder proceeds from some bad Disposition in the Constitution, which requires the immediate Assistance of a skilful Physician.

P A R T II.

IT is evident from what has been said through the whole Course of the foregoing Treatise, that the Course of Anxiety, Pain and Danger which Women undergo, from the Time of Pregnancy, till some Time after the Birth, is very considerable, even when it is most successful. How extraordinary then must the Danger be, when Nature is interrupted in her usual Progress, towards a happy Conclusion of this grand Undertaking? Here it is, that a Surgeon meets with the Test of his Skill, and of the Dexterity of his Hands; here it is, that he must call to his Assistance all his Resolution, Humanity, Intrepidity, Caution and Circumspection; and here I must beg Leave to advise the young Practitioner, that he may not interfere in a Matter of such important Consequence, both to his own Conscience and Mankind in general, till, after being perfectly well acquainted with Chirurgical Operations
of

of all Kinds, he has for some Time given himself wholly up to the particular Study of this Art. In all other Chirurgical Cases, you have the Assistance of your Eye for your Guide and Direction ; whereas here you must not only operate in the Dark, but even use cutting Instruments, not absolutely under the Direction of your Hand, and that indifferently with both Right and Left, as there is Occasion. Hence it is evident, that the Exercise of the Mind by reading; though absolutely necessary, will never without Practice, adapt the Hands to the Performance of Operations necessary for the Accomplishment of this, or even any other meaner Art.

THOUGH it cannot be denied, that there may be as good Physicians and Surgeons brought up and educated in *Dublin*, as in any Part of the World, without being obliged to go to any other Country for additional Experience ; yet I cannot help declaring the Necessity of being indebted to *France* for the true Knowledge of practical Midwifry ; for the Opportunities which are there met with, are no where else to be found, without which, it is hardly possible to be an

Adept; namely, those of ocular Demonstration of Women being delivered, both in natural and preternatural Labours; where, as well the external Parts of the Patient, as every Action of the Operator, are the whole Time in View; the Necessity of which Advantage, there is no Need of Arguments to prove.

BESIDE the above-mentioned Acquisitions necessary for a practising Man-midwife, he must always observe an exact Regularity in the general Conduct of his Life, keeping up to the strictest Rules of Sobriety; for he knows not the Instant he may be called, where the greatest Coolness and Steadiness of Mind and Body are requisite; therefore he must never venture to run the Risque of being intoxicated with strong Liquor, whereby not only his own Reputation, but the Lives of a Mother and Child may be brought into extreme Danger.

IN the following Part of this Essay shall be given, a short View of what is to be done for the Assistance both of the Mother and Child, in preternatural Labours, where the

Child

Child cannot come forth without the immediate Assistance of the Operator's Hand, either with or without Instruments; when they are to be used, and the particular Instrument most proper for each Case, together with the Description and Application of some Instruments contrived by the Author.

UNDER the Denomination of preternatural Labours, shall be included, every Accident that Women are subject to, where Operation is necessary at any Time during the whole Course of Pregnancy; beginning first with Abortion, or as it is commonly called Miscarriage.

By Abortion is meant the bringing forth a Child, before the Time designed by Nature for its Perfection, from what Cause soever; for as a mere Operator, it is not my Province to enter into the more remote Causes of this, or any other Matter contained in this Treatise; therefore, whatever may be the Procatarctic, the immediate Cause is the Separation of the Placenta, either wholly or in part, from the Fundus Uteri, and an immoderate

moderate Flux of Blood from the Pudendum consequent thereupon.

THOUGH it be not natural to have any uterine Discharge during the Time of Pregnancy, yet it frequently happens, without any Danger of Abortion, or any other ill Accident; wherefore it is necessary, exactly to distinguish, between the Discharge that is, and that which is not dangerous: That which is without Danger, happens at the usual monthly Period, perhaps for two or three Months after Conception; nay sometimes, though very seldom, during the whole Time; being attended with no bad Symptom, either of Pain or forcing downwards, and is generally in a less than usual Quantity; whereas the illegitimate and dangerous Flux, is out of the usual Time, and the Consequence of some external Hurt, some extraordinary Passion of the Mind, as Fright, Anger, excessive Joy, Grief, &c. taking Medicines improperly, or perhaps with that Design, some acute Disease, or perhaps a natural bad Habit of Body; it is frequently attended with Pain, and forcing down; and notwithstanding all Endeavours to the contrary,

tray, still increases to an excessive Degree, whereby the Patient is in great Danger of being lost, if not timely assisted, by the Extraction of all the then Contents of the Womb let it happen at what Time soever of Pregnancy.

WHEN the Operator is convinced by the above Remarks, that this immoderate Flooding, is caused by the Separation of some Part of, or the whole Placenta from the Bottom of the Womb ; he must place the Patient in the Position mentioned, in speaking of Natural Deliveries, and introducing first one Finger, he will in all likelihood, find the Orifice of the Womb much relaxed, from the Quantity of Blood passing through it ; but be that as it will, he must insinuate one Finger into it, and by moving it round, widen the Orifice, so as to make Room for another Finger ; when these two are entered, he will easily dilate, by constantly moving them from each other, till he gets in a third, and so on, till he introduces the whole Hand into the Womb, where he must instantly break the Membranes, and take hold of the Child by the Feet, according
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to the Directions given for the Delivery of Twins, and bring it away with all convenient Speed ; then extract the Placenta, and clear the Womb of every Thing that may prevent its Contraction ; which being done, the Flux will cease. When the Placenta is intirely separated, it commonly presents itself first at the Orifice ; if so, it must be first brought away, and so on as above.

THOUGH a Woman be come to her full Time, if the Labour begins with a violent Flooding, one must not wait for Pains, but immediately proceed as if it were a Miscarriage, according to the above Directions.

HERE I hope the Reader will not take amiss, the Relation of a Case which shews the Necessity of this Practice, even when the Patient is come to her full Time : I was sent for to the Wife of one TILBURY a Constable, living in the Earl of *Meath's* Liberty, who had been for two Days in Labour, and was then ready to expire by a violent Flooding, which I was convinced of by seeing her ; by inquiring what had been done for her Relief, I was told by her Friends,

Friends, that finding her very weak, and not likely to be delivered, after two Days Labour, they thought it necessary to send that Morning (it being now about Noon) for the Assistance of a Man-Midwife, who, according to their Phrase, had worked at her near an Hour, upon which ensued the above-mentioned Flooding; at length, the miserable Patient, after the Operation of his Hands had ceased, heard the clashing of Irons against each other, which terrified her prodigiously; and asking him what he was then going to do, he told her, that without having Recourse to the Help of Instruments, her Life was inevitably lost; which she absolutely declared she would not submit to, but chose rather to die, whereupon this worthy Operator in a violent Passion went away, and swore she would not live five Minutes; wherefore her distressed Friends, unwilling to believe him, sent for me; I found this unhappy Woman in the most imminent Danger, being seized with Faintings, Hiccup, having her Face pale and Hippocratic; upon Examination, I found the Placenta presented to the Orifice of the Womb, which I immediately extracted, and though the Head

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was far advanced in the Passage, yet I put it back into the Womb, and taking hold of the Feet, brought a living, though very weak Child into the World; the Mother also recovered, though with much difficulty; and is now living, and ready to testify the Truth of what is here related.

FROM considering the Circumstances of the above History, it is evident, in the first Place, that there was no extraordinary Obstacle to the Delivery of this poor Woman; but that this Monster of a Man thought it necessary, I suppose, for his own Credit, that he should deliver her instantly, by main Force; imagining, be the Event what it would, that the ignorant Spectators would judge of his Merit, according to the Excess of his Labour, which is too often the Case, though here Providence ordered it otherwise; it is also certain, that by his Ignorance, and the violent Action of his Hands in the Womb, he separated the Placenta, which occasioned the Flooding; here in all likelihood, he thought he had effectually destroyed her, and that there was nothing left to save his Reputation, but his pretended Application of Instruments,

Instruments, whereby he might Appeal to the deluded Spectators, that notwithstanding the Help of Instruments, she was not to be saved. Every thinking Person will immediately be convinced, that there was no Necessity for, nor Possibility of the Application of Instruments for the Extraction of the Placenta, it being a soft pliant Body, easily taken hold of by the Hand; the same may be said in respect of the Child, from the Method whereby it was brought forth.

HERE I cannot avoid expressing my Concern, that in so great and flourishing a City as this of *Dublin*, there is no Method of hindering such Impostors, from committing these outrageous Villainies on the Public, who in this respect are so liable to be deceived. It is true, the better Sort of People are cautious who they imploy; but the Poorer, who are by much the greater Number, and most subject to Misfortunes in Child-bearing, are glad to get the Assistance of any kind of Man in their Extremity, without farther Inquiry. I am the more imboldened, to enter into this Digression, as I am convinced, that the Person concerned in the above History,

tory, is no more intitled by his Education, to Practice Midwifry, or any other Branch of Surgery, than a Carpenter or Shoemaker ; this I am obliged to declare, to free Gentlemen of Merit from Censure.

NEXT, the bringing forth a dead Child, comes properly under our Consideration ; all Authors who have wrote of Midwifry, have with great Reason, given the strictest Charge to be perfectly certain of the Child's Death, before you proceed to any Operation that might endanger its Life, should you be mistaken ; wherefore they have mentioned the Signs that indicate such a Misfortune ; such as the Mother's having received some Hurt, whereby the Child ceased to move, for some Time before the Labour commenced ; when there ouzes from the Womb, a foetid corrupt Humour ; when the Mother at the same Time that she feels no Motion, perceives a great Weight at the Bottom of her Belly, which weight falls to whatever Side she lies on ; when her Breath stinks, which before was sweet ; when her Colour becomes livid, and her Belly feels cold ; and at the Time of Labour, by not perceiving
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any Pulsation in the Fontanel of the Child, or in the Funis; and if the Finger smells cadaverous, after being in the Womb. All these Appearances, or the Majority of them concurring, are requisite to prove the Death of the Child; for the Mother's Affirmation of its not stirring, even for some Days before, is not sufficient. The Necessity of this Caution will appear from the following Circumstances.

THE Child when dead, commonly comes in a wrong Posture, for want of the reciprocal Action of the Muscles, whereby the Spine of the Neck, Back and Loins is kept firm in its Direction; so that from the Mother's Throws, the Child's Body is thrust all of a heap; and then we immediately proceed to the Assistance of the Mother, without having any Regard to the Child; extracting it by the Help of Instruments, if the Hands be not sufficient; whereby, if we should be mistaken, it must be destroyed; wherefore Mr. DEVENTER will not be convinced of its Death, but by the Separation of the Skin from the Scalp.

IF it be known by the Signs above-mentioned, that the Child is dead before the Commencement of Labour; there is a very simple and easy Method of bringing it forth, without endangering the Mother by instrumental Operation; namely, upon the first Eruption of the Membranes, to introduce the Hand into the Womb, and extract the Child by the Feet, before the Head be advanced into the Passage. By observing this Method, if the Child should happen to be alive, notwithstanding all Appearances to the contrary, it would receive no Damage. It is a known Practice, upon extraordinary Fluxes of Blood, in Time of Labour, to get hold of the Feet, and bring away all the Contents of the Womb, without waiting for Pains, and yet the Child lives and does well. From the good Success of this Practice when there is a Necessity for it, it is much to be doubted, if it would not be laudable in the Beginning of all Labours, how natural soever; certainly it would save many Pains to the labouring Woman; however, this is an Innovation that I shall not pretend to enter into the Merits of.

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FROM what has been said, I will venture to affirm, that if the Operator be present at the Beginning of Labour, where there is a Suspicion of the Child's Death, he may without Hesitation, when the Membranes are broke, introduce his Hand into the Womb, with the usual Delicacy and Precaution, and slipping it along the Child's Belly, take hold of the Feet, and draw it forward as has been before directed.

By this Method, we avoid the Danger of hazarding either the Mother or Child's Life, (if it should happen to be alive) by the Use of Instruments, or violent pressing of the Head, with the Operator's Hands, on the Presumption of its being dead; for there is hardly any possibility of using Instruments, without destroying the Child and endangering the Mother; however, there are some Cases as shall be shewn hereafter, where they must be applyed, even when the Child is alive.

HITHERTO we have talked of the dead Child, while it is in our Power to bring it forth, with Safety to the Mother and it,

should we be mistaken as to its Death ; that is when we have the good Fortune of being present at the Commencement of the Labour. But when the Child is advanced beyond the Orifice, into the Passage, by the Ignorance of some Female Enterprizer in Midwifry ; then it is almost impossible to put it back in order to find the Feet ; wherefore, if it should happen, either from the Mother's Weakness, Narrowness of the Passage, or extraordinary Size of the Child, that it cannot come forward ; then it must be extracted, as shall be directed at the latter end of this Treatise, when we come to speak of Instrumental Operations.

HERE it will not be improper to take Notice of the Difference between a living and dead Child, in respect of the bringing of each forth : First then, with regard to the Mother ; the Muscles of the lower Belly, and all the Parts assisting in the Expulsion of the Child, are much impaired in their natural Disposition, by the Stoppage of the Circulation between the two, whereby their component Vessels become as it were choaked ; and the Coldness and Weight of this dead Mass, still

still help to weaken and enervate the circumjacent Parts; the Patient grows weak, by carrying this extraneous corrupting Body; the Parts composing the Passage lose that lubricating Mucus, so necessary to relax, and facilitate the Child's Exit. Secondly, with regard to the Child, the Membranes by corrupting, break, and let go the Water, whereby it is left dry in the Womb; it commonly comes in a wrong Posture, from Reasons already given: Lastly, the Fluids contained in this Body begin to ferment in some short Time after Death, whereby they are rarified, which increasing in Proportion to the Degree of Corruption, magnifies its Size sensibly, and hinders its Expulsion. Thirdly, with regard to the State of the Placenta in this Case, I shall beg Leave to refer to the first Part of this Treatise, in the Directions for the Delivery of Twins.

THESE Miseries, which the Patient is obnoxious to, in bringing forth a dead Child, are I hope sufficient to defend this Practice of extracting it by the Feet; I have frequently put it in Execution, and always with the most pleasing Success; and make no Doubt

of the Approbation of every Practitioner who shall make the same Experiment.

HERE I must beg the Reader's Leave to mention one Thing, which I own I never yet attempted to put in Practice ; however, as it carries a very promising Appearance of Success, it shall be submitted to his Censure : Suppose a Woman in Labour, who by the Experience of a former Delivery, was found by the Operator, to have the Passage through the Bones of the Pelvis so narrow, as to refuse an Exit to the Child (though not of an extraordinary Size) by means of the common Efforts of Nature ; and that on this Account it died, or was destroyed by Instruments, for the Preservation of the Mother's Life ; in this Case there is a strong Probability of saving the Child by introducing the Hand when the Membranes break, and bringing it forth by the Feet, with a strict Observance of all the Precautions already taken Notice of for that Purpose,

THERE are some Objections to this Practice, which shall be considered with an Endeavour to remove them : First then, it may
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be objected, that Nature is interrupted in, and deprived of its usual destined Course. This indeed is true ; but it is only in a Case where Nature is defective, and likely to require the Assistance of Art, in a much more dangerous, and perhaps fatal Manner, at least to the Child. Again it may be objected, that the same Narrowness of the Passage through the Pelvis, which hindered the natural Expulsion, with the Head foremost, may hinder its Extraction, when brought forth by the Feet ; this is also allowed ; but yet, if we consider the Matter properly, it will appear, that by drawing from a small End, which is the Feet, in order to bring forth the larger, with the additional Assistance of holding the Legs in one Hand, and having the Finger of the other in the Child's Mouth ; there is a far greater Probability of bringing it forth ; than when the large End comes first, and that without any Probability of assisting the Mother's Efforts, but by the Destruction of the Child.

THERE are many Disorders of the Womb and its Ligaments, which make the Labour difficult and preternatural, though the Child

be in a proper Direction ; such as Ulceration, Scirrhus, Cancer, &c. The Disorder peculiar to the Ligaments, is extraordinary Relaxation. The Disorders of the Womb or Vagina, particularly Scirrhus or Cancer, hinder their Dilatation, and consequently make the Labour difficult ; wherein, if it cannot be assisted according to the Directions already given, in speaking of the Method of dilating the Os Tincæ, in natural Labours ; there must be an Incision made in the contracted Part, as shall be laid down when we speak of Operations with Instruments,

THE Relaxation of the Ligaments, particularly the Rotunda, produces a Prolapsus Vaginæ, and sometimes of the Uterus, if the Labour be not prudently and skilfully conducted ; but if Matters be properly managed, the Labour under these Circumstances, is commonly the most expeditious and free from Danger, as there is in this Case, a general Tendency to Relaxation. In order to make this Labour thus successful, it is necessary to consider, that the Ligamenta Rotunda are the principal counter Force, to the Pressure of the Child's Head against the

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the Orifice of the Womb, whereby its Dilatation, is accomplished ; hence it appears, when these Ligaments lose their Strength and Spring, from any extraordinary Degree of Relaxation, from what Cause soever, that they are capable of being extended beyond their natural Length, whereby the Orifice of the Womb, instead of being Dilated, is thrust forward, towards the external Orifice of the Vagina by the Child's Head, and consequently the Vagina thrust out before it, which is the Prolapsus.

WOMEN who have this Disposition, are most commonly troubled, during the Time of Gestation, with what they call a Bearing down, which is a Sensation, as if the Womb were constantly coming out of their Body ; this is a sufficient Warning to the Operator, to be timely on his Guard, to prevent the above-mentioned Mischief ; which is done, at the same Time that he assists the Dilatation of the Os Tincæ, according to the Directions already given ; by bearing up the Womb with his Fingers, in Proportion as the Child forces down ; and when there is a Dilatation sufficient to admit of the Assistance

tance of both Hands, introduce two Fingers of each Hand, at the Sides of the Child's Head, by which you will make the better Resistance; this must be continued till the Orifice has passed over the Head, and then the Danger is quite over, though otherwise related by Mr. MAURICEAU, and most other Authors; wherefore this Matter shall be farther explained presently; it must be observed, that during the whole Time of this Labour, the Patient must not be permitted to walk about the Chamber, as is usual in natural Cases.

Mr. MAURICEAU gives positive Directions, that in the above Case, the Child should not be taken hold of, nor drawn forth by the Head as is usual in natural Deliveries, lest the Womb should come out with it; he also says, that if the Infant should stop, after the coming forth of the Head, so as to endanger its Suffocation; then the Midwife must call a second Person to her Assistance, to draw it gently forth, while she keeps back the Womb with both her Hands.

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THE Usefulness of this Precaution, and the bad Consequences that may be the result of it, will easily appear, to every intelligent Person who considers the Matter properly, from the following Arguments: First then, every one conversant in Deliveries, who knows the Structure of the Vagina, will allow that it decreases in Length, in Proportion as the Orifice of the Womb dilates; so that when the Head has passed the Orifice, the Length of the Vagina is intirely lost in the Orifice; and after this, its Connection to the adjacent Viscera, will hinder its coming forward, by drawing forth the Child by the Head; the Body of the Womb, with Submission to our Author, is not to be considered in this Operation, as it is quite behind the Efforts of the Child, and perfectly disengaged from any Circumstance, that might be the Cause of its coming forward, by this Manner of assisting the Delivery.

SECONDLY; it is necessary, in order to vindicate my Dissent from so worthy an Author, to shew the bad Consequences that may be the Result of his Practice; for which Purpose, we must consider, that the Expulsion

sion of the Infant, is performed by the Contraction of the Diaphragm and abdominal Muscles on the Womb, and a contractile Disposition, peculiar to the Womb itself; from the Nature of Things, it is evident, that this united contractile Force decreases, in Proportion as the Object recedes from its Influence; or in other Words, as the Child advances into the World; so that when the Head is brought forth, the Force is much diminished, that should push forward the Shoulders, with this aggravating Circumstance, that the Orifice of the Womb, from its natural Propensity, will in a very short Time, close about the Infant's Neck, and make the Delivery both difficult and dangerous; which may be so easily prevented, by taking the Head in both Hands, to assist the declining Efforts of Nature, as has been formerly directed.

It may be said by way of Objection, that in Brutes there is no Necessity for this Assistance; to which may be answered, that their Shape is depressed on each Side, where the Shoulders are fixed to the Body, so that they scarcely increase the Breadth of the Animal in any Degree; whereas our Shoulders,
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on the contrary, are fixed on the most prominent Part of the Body, and give it a considerable Breadth.

FROM what has been said, I hope it appears, that though the Vagina for want of proper Management, may be protruded, before the Os Tincæ be sufficiently dilated; yet that there is no Danger, or even Possibility, of the Womb being extracted, by giving this necessary Assistance to the Delivery of the Child. However this Danger may come if not carefully avoided; for in bringing forth the Placenta, in this relaxed State of the Womb and its Ligaments, it may be absolutely turned inside out, if the Extraction be performed in the ordinary Method; wherefore the Funis must by no Means be pulled, nor the Patient suffered to force downwards, until the Operator's Hand be first introduced into the Womb, and there, by the alternate Motion of the Fingers between it and the Placenta, make an intire Separation, and then bring it forth.

HERE it may not be improper, to say something of the Bearing-down, Prolapsus Vaginæ

Vaginæ and Uteri, as consequential to difficult Labours, and those unskilfully conducted.

IF it should happen, that the Womb be intirely prolapsed, by the above-mentioned imprudent Management, it must be immediately reduced, and placed in its natural Situation, by the Introduction of the Hand ; the Patient must be kept as long as possible lying in Bed, not rising even to perform the natural Excretions. If the Patients Habit of Body did not contribute to this Mischance, the Parts, by being properly replaced, and continued for some Time unmolested, will recover their usual Tone, without any farther Application ; but if the relaxed State of these Parts, proceeds from a bad Constitution, it must be remedied by a skilful Physician ; at the same Time using Pessaries, such as are described in all Books of Midwifry. The Application of strengthening and astringent Plaisters, to the Perforations of the oblique Muscles of the lower Belly where the round Ligaments pass, to be inserted into the Os Pubis, is likewise of great Use in this Case.

THE Womb thus prolapsed, if not immediately reduced, will swell, inflame, and be in great Danger of mortifying; and the longer it remains out of the Body, the more difficult will be its Reduction, in Proportion to the Increase of Swelling, which is caused by the Restriction of the external Orifice of the Vagina; wherefore if the Reduction happens on this Account to be difficult, the Part must be fomented with the most emolient mucilaginous Decoctions that can be contrived, and all possible Means must be used by the Hands, to restore it to its natural Situation, which if it cannot be accomplished, the miserable Patient must in all Probability die; though there are Histories of some, who have survived the Amputation of the prolapsed Womb; which was performed by tying a Ligature round its Neck near the Pudendum, which is to continue till the Part drops off.

HITHERTO we have treated of those Labours which are difficult and against Nature, though the Child be in a natural Direction; but as the greatest Danger arises from the indirect or preternatural Situation of the Child

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in the Womb ; we shall endeavour to point out their Differences, and the Method of removing each particular Calamity ; but first, it will not be improper to consider how far the Womb is capable of receding from its natural Situation, whereby the Labour may become difficult and dangerous.

Mr. DEVENTER a *Dutch* Physician, is the first Author that took Notice of the Obliquity of the Womb, which he takes infinite Pains to prove ; whereby he has made an otherwise small Treatise of Midwifry, swell into a large Volume ; he absolutely declares, that the Bottom of the Womb is capable of falling backwards, forwards, and to either Side ; whereby the Orifice is conveyed to the opposite Side ; namely, if the Bottom of the Womb falls forward toward the Navel, the Orifice and consequently the Head of the Child, goes towards the Os Sacrum, and so on as to the other Directions ; so that the Infant may be in a natural Direction in the Womb, and at the same Time, in a contrary one with regard to the Pelvis.

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THIS Doctrine may at first Sight have an Appearance of Probability ; but upon mature Consideration, it will certainly appear very improbable, not to say quite repugnant to Reason and ocular Demonstration ; as we shall now endeavour to prove.

FIRST then, it must be remarked, that the Womb lies between the Bladder of Urine and the Rectum, and is continued to them by a common Membrane from the Peritonæum ; which with the four Ligaments, is fully sufficient to keep it in a proper Direction, 'till by the Increase of the Fœtus, Water and Placenta, the Bottom extends beyond their Influence ; which is, suppose, about the fourth Month ; and at this Time, the Womb and its Contents with all the other Viscera fill the whole Cavity of the lower Belly, in such a Manner, that it is impossible its Bottom should fall an Inch either to one Side or the other ; this is easily proved, by examining the Belly of a Woman after four Months Pregnancy, or thereabouts, which is perfectly hard and tense, whether the Stomach be full or empty ; and after this Time, the Muscles and Integuments of the lower

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Belly are extended, by the Womb growing too large for its Capacity, so that in the latter End of Gestation there are many Fibres of the Integuments of the Belly torn asunder, leaving large Cicatrices, which are never after to be obliterated. Moreover, at the natural Time of the Birth it is evident, from opening the Bodies of those who die in Labour, that there is not the least empty Space in the Belly, the Womb thrusting the Diaphragm a great Way into the Thorax, extending itself under the Concave Side of the Liver, and in short, leaving not the least Room whereby it might incline either to the one Side or to the other. But admit there were a Possibility of the Bottom of the Womb's moving even three Inches any Way: Its Effect on the Orifice must be very inconsiderable, as the Bottom is at this Time, at least twelve Inches from the Orifice; so that if we suppose a Line twelve Inches long, having one End, which represents the Orifice, fixed to a Center, and the other End representing the Bottom, to describe three Inches of a Circle, at its full Extent from the Center; how insignificant must be the Alteration, at half an Inch distance from this Center, where

where we may suppose the Child's Head to be.

As Mr. DEVENTER has taken great Pains to prove that the greatest Difficulties in Delivery, proceed from the Obliquity of the Womb ; and as the Notion (being a Novelty) was received with great Applause by many Persons of Note, as they declared by Letters which are published in the Beginning of this Book ; an unexperienced Reader, may very probably, from the above Authorities, take the whole Matter for granted, without farther Inquiry, to the great Disadvantage and Danger of the Patients, who might afterwards come under his Care. Wherefore, I thought it my Duty to shew the Absurdity of his Hypothesis ; for according to our Author's Way of reasoning, the Womb must be a disengaged, fluctuating Body, free from any kind of Restriction ; whereas upon Inquiry, it will appear quite otherwise ; nor is it to be imagined, that Nature would leave an organical Body of such Importance, subject to such frequent Disasters.

HAVING endeavoured to remove the mistaken Fancy of the Obliquity of the Womb, we may the more properly proceed to describe the various unfortunate Situations of the Infant therein contained; and they may be reckoned threefold: That is to say, when the whole Body of the Child lies transverse, either with the Belly, Back or Side presenting to the Orifice, with or without many other aggravating Circumstances, as shall be mentioned in their turn. Secondly, when the Body coming in a natural Direction, the Labour becomes difficult, by the Head's being turned to any Position, differing from that which has already been proved to be the natural one; and that, with the Addition of the Funis coming with the Head; one or both Hands coming with it, &c. Thirdly, when the Feet come foremost, when one Foot comes alone, when one or both Knees present, &c.

THE Head may come with the Face towards the Orifice, having the Back of the Head lying between the Shoulders; it may also come with the Side, or Os Temporis presenting, having the opposite Side lying on the
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the Shoulder ; or it may come with the Back of the Head foremost, the Chin being on the Sternum. The Funis is liable to come down with the Head in any of these Postures, as is also one or both Hands.

IMMEDIATELY upon the Eruption of the Membranes, the Operator is to examine by the Touch, whether the Child comes right, as this is the Time when his Assistance can be the most effectually exercised ; therefore if he finds the Head present in any of the above Directions, and that there is a sufficient Dilatation of the Orifice, with a large Pelvis, and other concurring fortunate Circumstances ; he may introduce his Finger between the Head and Os Pubis, at the same Time pressing down the Head, and drawing his Hand a little forward, so as to bring the Face parallel to the Sternum ; not forgetting to incline the Chin towards one Shoulder, lest the Face should present at the Birth, where it could not be so easily set right ; the same is to be observed in every other Direction of the Head, observing the particular Circumstances peculiar to each ; namely, by putting

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the Finger under the Part displaced, and so reducing it.

THIS Practice will always be successful, where there is such a Disposition of Parts in the Mother, as has already been mentioned ; but on the contrary, when the Pelvis is small, the Orifice difficultly dilated, and the lubricating Mucus but in small Quantity ; there the Operator must turn his Attention another Way : He must introduce his Hand into the Matrix, along the Child's Breast, to bring it forth by the Feet, and especially if one or both Hands, or the Funis comes with the Child's Head ; for there is hardly any possibility of returning any of them to their proper Place ; the Funis will fall down as often as you thrust it up ; and there is no Room to bend the Arm for its Reduction. As there is no Danger of hurting either Mother or Infant, by bringing it away by the Feet, (provided the Operation be judiciously performed) it is better to do it immediately, than depend on a small Probability of Success by replacing the Head ; for this will fatigue and frighten the Patient, as much as bringing forth

forth the Child by the Feet ; and after all, she has the whole Labour to go through, when her Spirits, that should support her Efforts, are almost exhausted.

IF it should so happen, that through Imprudence or want of Experience, the Child should be suffered to advance its Head beyond the Orifice, into the Passage, in any of these unhappy Directions, or having the Funis or Arms engaged with it ; then indeed the Difficulty and Danger are much increased ; for here it is almost impossible to put the Child back, so as to get hold of the Feet, and perhaps as difficult to bring it forward ; if both Hands come with the Head, it can scarcely come so forward as to hinder its being put back in order to find the Feet ; but when one only comes, the Head may advance with it, so as to put it out of the Power of Man to move it one Way or the other without the Help of Instruments ; however, it sometimes happens, that the Child is born alive, though the Hand comes forth with the Head ; by giving all the Assistance in a most industrious Manner, as we mentioned in the first Part, speaking of natu-

ral Deliveries ; but if these Endeavours do not succeed, and that the Patient grows languid and weak, we must proceed to instrumental Operation, as shall be particularly remarked hereafter.

IF the Funis comes with the Head, the Danger is two-fold, from obstructing the Course of the Blood through it ; first, the Child is in Danger of perishing, for want of its usual Supply of Blood : And secondly, there may ensue a Flooding, by the Blood's wanting a Passage from the Placenta, which may cause its Separation before the proper Time ; wherefore it must be put back beyond the Head if possible ; if not, it must be brought to the Side of the Head, near the Temples, and by the Flatness of that Part, it may in some measure avoid the Compression.

THE Labour may be extremely difficult and dangerous, when the Head is advanced, in any of the above-mentioned Directions, though neither Hand nor Funis comes with it ; for if the Face presents, the Top of the Head being intercepted by the Os Pubis, the
Sternum

Sternum is pushed forward by the Mother's Throws, and the Head drove back between the Scapulæ, so that at the same Time that the poor Patient's Pain and Efforts are in vain, the Infant is in constant Danger of being suffocated ; the Cause of this unhappy Accident has been explained, when we spoke of the Position of the Head in natural Labours. Upon this Occasion, as well as all others, the Patient must be encouraged, with the Promise of a speedy Delivery, while the Operator must use his utmost Endeavours to replace the Head ; which, though he may not accomplish, yet every Attempt will facilitate the Expulsion ; and if all proves ineffectual, he must have Recourse to Instruments as above.

I was called to the Assistance of a Woman in Labour, forty Hours after the Eruption of the Waters ; the Woman who had been all this Time endeavouring to deliver her, told me she was very certain, that there was something very extraordinary in the Form of the Patient's Pelvis, for notwithstanding that she had the Advantage (as she accounted it) of pulling by one of the Child's Hands, which
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came along with the Head, yet she could not bring it forth ; upon examining, I found by the Hand, the Child was living ; but the Head so far advanced, that it could not be put back in order to come at the Feet ; however, after an Hour's excessive hard Toil, I brought forth a living Child, with a Depression of the parietal and temporal Bones, proportional to the Thickness of the Arm depressing them ; however, by the next Morning, the Bones recovered themselves, and the Child was perfectly well. This was a very extraordinary Case, and by no means a Precedent for attempting the like Practice, where it can be avoided.

SOMETIMES the Child presents one or both Hands, without any other Part coming with them ; and sometimes both Hands and Feet together.

WHEN the Hands come by themselves, it is caused by the Child having them near the Head when the Membranes break ; which getting into the Orifice, consequently push the Head to one Side ; so that escaping the Orifice, the Hand or Hands advance forward by the Mother's

ther's Throws, and the Head in Proportion is still more put out of the Way, till the whole Arm or both, are forced into the World. This is one of the most difficult Cases in Midwifry for the Operator ; for in the first Place, the Head being out of its natural Direction, cannot press on the Orifice so as to dilate it, and the small Dilatation that is made, is taken up by the Hand, which cannot be put back if far advanced, so as to give Admission to the Operator's Hand, for to bring forth the Child by the Feet, which is the only Method in this Exigency ; and again, the Feet are at a greater Distance from the Orifice in this Situation than in any other ; the Water also is in a short Time evacuated, when the Head is not in, or close upon the Orifice to hinder its Exit.

IF the Hand be not far advanced it must be instantly put back into the Womb ; and if there be occasion, the Orifice must be dilated with the Fingers, according to the usual Directions, and the Hand introduced along the Child's Belly, to find out the Feet whereby to bring forth the Infant ; observing all
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the Precautions already laid down for that Purpose.

IF the Hand be so far advanced that it cannot be put back, the Operator must dilate the Orifice, so as to thrust up his Hand by the Side of that of the Infant ; taking hold of the Feet as above ; and in Proportion as the Feet advance forward, the Hand will retire into the Womb. The most convenient Posture for the Patient to be in, during this and all other Operations where the Child is to be turned in the Womb, is on her Knees, in a Bed at a convenient Distance from the Operator, leaning her Head on a Woman's Lap, who must sit on a low Stool in the Bed for that Purpose ; this is mentioned more at large in the first Part of this Treatise.

WHEN Hands and Feet come together, there is much less Difficulty in performing the Operation, than in the preceding ; for the Feet are not to be sought for ; the greatest Nicety in this Case, is to distinguish between Hands and Feet, when they are thus confused ; and though it may seem odd to imagine it, yet one may very possibly be mistaken,

taken, if not very exact in his Inquiry ; therefore the most sure Marks to distinguish them by, is the Distance of the Thumb from the Index of the Hand ; and the Prominence of the Heel in the Foot. When this Distinction is confirmed, the Operator must put back the Child's Hands into the Womb, not taking any great Pains to thrust them very far, for as the Feet are drawn forward, they will retire.

IT is to be considered, that the Child in this Posture, has the Spine of the Neck, Back and Loins much bent ; and that in coming forth by the Feet, the whole Body must move in a circular Progression, before it is intirely brought forth ; wherefore the Operator must draw the Feet forward very gently, considering as it is coming forth, what is to be done when it comes to such and such a Part ; never forgetting to put his Fore-finger into the Mouth, immediately when the Hands are brought forth, lest the Orifice should close about its Neck.

HAVING considered the most material Circumstances relating to the preternatural Labours,

Labours, where the wrong Situation of the Head is chiefly the Cause ; we shall now proceed to treat of those Labours where the Body is transverse in the Womb ; presenting various Parts of the Trunk to the Orifice.

THE Child may lie across the Womb, presenting any Part of the Spine, from the Scapulæ to the Sacrum ; and the nigher to the Shoulders, the more difficult the Operation, as the Feet are so much the more distant from you, when they, *i. e.* the Shoulders present, it is easily perceived that it is not the Head, from the Flatness of Form, and Inequality of the Bones ; that immediately must put the Operator upon examining more narrowly, and by comparing Circumstances, to determine what Part it is ; which is discovered by its particular Form, and the Species of its component Bones ; whereupon the Hand must be introduced, sliding it along the Infant's Back, till you can bend the Fingers under the Os Coccygis ; by which Means you thrust up the Body towards the Head, in order to bring the Feet the more into your reach ; which when you get hold of, draw them out very gently ; for the
Back

Back and Hips are more capable of being Hurt in this Direction, than if the Belly presented ; as it is contrary to the bending of their Joints.

IF the Middle of the Back presents, the Child is in great Danger of being suffocated, if not speedily brought forth ; for the Mother's Forcing doubles its Belly, Breast and Chin together in such a Manner, that it cannot possibly endure it long. The Delivery is performed as the last is, but with more Ease, as the Feet are more readily come at.

WHEN the Os Sacrum presents, the Child commonly comes Buttocks foremost ; it may sometimes be brought forth in this Posture, when it happens to be small and the Passage large ; but if this should not be the Case, the Labour may prove most dangerously difficult, if it be suffered to advance too forward in this Posture ; wherefore as soon as you perceive, by the Softness and Fleishiness of the Parts, that the Buttocks present, the Body must be immediately thrust up, as far as possible into the Womb, without committing Violence ; and then search for
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the Feet; sometimes they are near the Orifice, when the Knees are bent, so that the Thighs only, lye close to the Belly, and the Calves of the Legs close to the Thighs; when the Feet are near the Orifice, they must be taken hold of by the right Hand; and at the same Time that they are drawn forward, the Buttocks must be proportionably thrust into the Womb, by the Fingers of the left Hand; for want of this Precaution, the Thigh-bone of many an Infant is broke; the Cause of this will appear, if we consider that the Thigh, which lies in a longitudinal Direction from the Orifice to the Bottom of the Womb, must be brought into a Direction quite opposite, before the Knee can be extended, which must happen before the Child can be brought forth; wherefore when it comes to this Point, it will be much facilitated, by thrusting up the Body with one Hand while the Feet are pulled down by the other. It may also happen, that both Legs and Thighs are extended along the Child's Body so as to have a Foot over each Shoulder, which much increases the Difficulty; in this Case each Leg must be taken separately, and the Knee bent, so as to bring them
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into the Posture just now mentioned ; in order to bring forth the Child after the same Manner.

IT must be again repeated, that the Child must not be suffered to come to the World, in the above-mentioned Posture, for though this Labour may happen to be very successful and expeditious, when the Passage is large and the Child small ; yet this is but accidental, for though we may discover the Passage to be large, yet we cannot judge of the Child's Size ; therefore we should not put Matters to the Hazard. However if the Labour should be so far advanced, that the Child cannot be put back, we must endeavour to forward its Expulsion as much as possible, by dilating the circumjacent Parts of the Mother ; and when Opportunity serves, a Finger must be introduced at each Side between the Child's Belly and Thighs, at the Groins, whereby it may be drawn forward, if of a moderate Size ; if on the contrary, it cannot be extracted in this Manner, there must be two Instruments applied in the Place of Fingers, as shall be hereafter directed.

Now we are to consider the Transverse Situations of the Infant in the Womb, when the Breast or Belly presents to the Orifice; these are more dangerous and difficult, both to Mother and Child, than those where the Back presented; and as the Shoulders were the most difficult of the other Directions, so is the Breast in this. The Difference in respect of the Child, is very considerable; for when the Back presents, the Body is bent in a Direction which the Vertebrae are capable of; namely, with the Face towards the Knees; but when the Breast or Belly is next the Orifice, the Vertebrae are bent backward, so that the Heels and Back of the Head meet at the Bottom of the Womb, which by the Mother's forcing, is very capable of straining or dislocating some of the Vertebrae.

THERE is one Thing very remarkable in this Kind of Labour, and as it is a Matter of the greatest Consequence, I am much surprized that it has never been mentioned in any Book of Midwifry, that I have seen; and that is, that the Orifice seldom or never dilates, notwithstanding the greatest Excess of Labour-Pains; the Reason of it is plain: In
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any other Situation of the Body, the Part next the Orifice will press on it more or less, to supply in some measure, the Place of the Head for its Dilatation; but when the Breast presents, it cannot even touch the Orifice by the Mother's Throws; for the Vertebrae of the Thorax cannot bend back, so as to give the Sternum that Degree of Convexity necessary for this Purpose, by Reason of the Length of their Spinal Processes; wherefore it frequently happens, that the Patient is four and twenty Hours in strong Labour, without the least Dilatation of the Os Tincæ; for which Reason, I hope it will not be improper to say something particular on that Head.

THE first Labour-Pains, from Reason and the Nature of Things, must certainly be to turn the Child in the Womb, for the Birth; but be that as it will, the Head does not press on the Orifice till the Pains begin to grow violent; then it is that we should begin to inquire into the State of the Orifice, and the Effect that each Pain has on it; if the Head comes right, we soon perceive its Influence by Touching, in the Manner already

set forth ; but if the Posture be wrong, especially Transverse, we shall perceive very little Effect from the Mother's Pains, and none at all if the Sternum presents ; therefore after the Patient has had many strong Pains, and no Effect produced on the Orifice, the Operator must Introduce one Finger into the Vagina, and therewith at every Pain, solicit a Passage for another through the Orifice, which must also assist in widening, till there be Room enough to make a strict Inquiry concerning the Part that offers ; if it be the Sternum, it is known by the Particularities of the Bones composing it, as Ribs, Cartilago, Ensiformis, &c. Then the Orifice must be still dilated, so as to give Admission to the Hand into the Womb, to find out the Feet, whereby to bring forth the Infant.

It is more difficult to extract a Child by the Feet when it is in this Situation, than in any other whatsoever ; which is the Reason why some Authors advise to bring the Head to its proper Position, and leave the rest to Nature ; but if the Reader considers, how much the miserable Patient must have

have suffered, and how much her Strength must be exhausted, when Matters come to this sad Period, I am sure he will not desire to have her left any longer in Torture ; but have the Child brought forth with all convenient Speed ; which must be by the Feet, notwithstanding the Difficulty.

To the End that this Operation may be performed with Success ; that is, so speedily that the Mother may not be too much fatigued, so as to endanger her Life ; and at the same Time, that the Child may be brought forth, without dislocating, or fracturing any of its Limbs ; I say, to this End, it must be considered; that in this Posture, every Joint of the Body and lower Extremities, are bent in a Direction quite contrary to their natural Disposition ; having the Heels and Back of the Head close to each other ; and that at the Bottom of the Womb ; this View must lead us to endeavour to bring the Feet nigher to the Orifice ; which cannot be done otherwise than by moving the whole Body in that circular Direction already described, which must be done in the following Manner :

HAVING given the Patient a Draught of some Cordial Liquor, such as Sack-whey, Cinnamon-water, or the like, and being placed on her Knees as before directed, the right Hand must be introduced into the Womb, being well greased either with Oil or fresh Butter; and sliding it along the Child's Belly, fix two Fingers under the Os Pubis, between the Thighs, and then pull your Hand towards you; which giving as it were a rotatory Motion to the whole Child, will bring the Legs nigher the Orifice. When you have brought it so nigh as to be within Reach of the Knees, take hold of the Thighs separately near the Articulation, and bring them close to the Belly; this will bring the Feet still nigher, which take hold of, and draw forth with Care and Caution; when the Feet have come to the Orifice, the Body will follow with less Difficulty than when the Back presents, proceeding in the same Manner; always observing to bring forth the Body with the Back next the Os Pubis of the Mother.

To confirm by Practice, the Assertion of the Orifice not dilating in the last mentioned

ed Situation of the Infant in the Womb, I hope the following History may be acceptable :

IN *March* 1738, I was sent for to a Gentlewoman in the eighth Month of her Pregnancy, who being affrighted the Day before, was seized with Labour-pains, attended with a Discharge of Blood from the Womb ; as neither Pains nor Discharge were very great, I desired her to lye quiet on her Bed, resolving to wait the Event ; the Labour constantly increased (with an Appearance of Blood at every Pain) to such a Degree, that I thought it Time to examine the Condition of the Os Tincæ, which I found perfectly close, and not the least Pressure on it during the Parox-ism ; as the Discharge of Blood was not very considerable, I thought it most proper to wait for the Assistance of Nature, still continuing to examine in hopes of a Dilatation ; nor was this an easy Operation, the Orifice being at a very extraordinary Distance from the Pudendum. I waited after this Manner with the greatest Anxiety, for the Space of eighteen Hours, at which Time the Orifice was not in the least altered ; though

the Patient was much weakened, from the long Continuance of her excessive Pains. At length I found the Case begin to grow desperate, and that something must be immediately done for her Relief ; I communicated my Opinion of the Matter to her Friends, and at the same Time desired the Assistance of some of my Brethren, as the Success of whatever was undertaken must be very doubtful, the Patient being naturally very weak and of a bad Constitution. We both examined her alternately several Times, and could make no Discovery of Particulars therefrom ; however the first Indication on all Accounts, was that we should contrive Means to give her some Respite from her Pain, in order to recover in some Measure, her Strength and Spirits ; to which End we gave her twenty Drops of Liquid Laudanum, in a Draught of Cold Cinnamon-water, whereby she soon fell asleep, which gave us Time to consider what was to be done ; my Assistant, from the excessive Constriction of the Orifice, and Impossibility of perceiving the Form of any kind of Body by the Finger, through the Substance of the Womb, was of Opinion that the Orifice and Parts adjacent, were Scirrhus,

Scirrhus, and consequently, the only Chance she had for her Life, was by making a Passage into the Womb, by an Incision thro' the Orifice; this I thought very little inferior to the Cæsarian Operation, and could not agree to it, so he went away, promising to return in two Hours, and insisting that this Operation must be then inevitably undertaken. In about an Hour after our poor Patient awaked, and her Pains returned with more Violence than ever; the Dread of the late Sentence, made me endeavour with all my Might to make the best Use of my Hands to avoid that of Instruments; whereupon I attempted to make Way through the Orifice for one Finger, which I did with great Difficulty, and after an Hour's hard Toil, I made way for the whole Hand, which found the Infant lying across the Pelvis, at a great Distance from the Orifice, as if the Forehead rested on one Os Ilium, and the Knees on the other; I brought it forth exactly in every Circumstance as above directed. I have frequently met with the like Cases since, and always dilated with my Finger, when after a reasonable Time, I perceived no Pressure from within, on the Os Tincæ.

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WHEN the Belly presents, the Operation is much less difficult, as the Orifice is in a Way of being in some measure dilated, and the Feet are more in Reach; the greatest Danger here, is from the Funis coming forth, which if it remains long out of the Body, the Child's Life will be consequently in Danger, from the Stagnation of the Blood circulating through it; which will impede the whole Circulation through the Infant's Body, whereby it will soon become as if it were suffocated. Wherefore when it does come out, as it is often happens, even before any perceivable Dilatation of the Orifice, it must be put back; hindering its Return (from the Mothers Throws) by stopping the Mouth of the Womb, with as many Fingers as the Occasion may require; and then proceed to the Operation, directly after the same Manner as when the Breast presented.

THE next Species of preternatural Labours, is when the Child comes with the Feet foremost; and though we have given Directions so often, to bring it into this Posture, in order to facilitate its Exit; yet when the Labour begins in this Position, it is necessary
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to premise some particulars for its Advantage.

WHEN the Child comes Footling, as is the usual Phrase, the Labour is subject to many Misfortunes if not prudently conducted; though by proper Management, it is capable of being as expeditious and fortunate, as if the Direction were natural. The chief Means therefore to make it successful, is to take Care that both Feet came together, and that those belong to the same Child; in order hereto, we must observe that in this Case the Water does not gather in so round and uniform a Bag as when the Head comes; which Appearance makes us the more strict in our Inquiry, whereby we may frequently feel the Feet through the Substance of the Womb, before the Membranes are broke; which we must be very watchful of, for when the Orifice is sufficiently dilated to give Passage to one Foot, it is most commonly thrust forth, by the Mother's Throws, if not diligently attended by the Operator; to avoid which, he must have his Finger at the Orifice, during the whole Time of every Pain; and when he perceives one Foot beginning to approach,
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he must introduce his Hand into the Womb, to find out the other ; if it be near the Orifice, lying parallel to its Fellow, of equal Length with it, and that the two great Toes are contiguous to each other ; he may be sure without farther Inquiry, that they both belong to the same Body ; and he may immediately bring it forth, according to the Directions already given, for bringing the Child by the Feet,

WHEN the single Foot is imprudently suffered to come forward, the Difficulty is increased by every Pain of the Mother ; for in Proportion as it pushes one Foot forward, it puts the other so much out of the Way ; and what adds to the Misfortune, is, that as the Child advances, the Womb contracts itself on it, which impedes the Leg being put back, in order to give a Passage to the Operator's Hand through the Orifice, to find out the other Foot. However, if it be not advanced very far, it may be easily put back ; and the Operator may slide his Hand along this Leg and Thigh, till he comes to the Buttocks ; and bringing it back again by the adjacent Thigh, he will be sure
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of committing no Mistake, which might very possibly happen if there should be Twins. If the Leg should be far advanced, it must be thrust back as much as possible, to make Way for the Hand, to find out the other, as above.

It sometimes happens when one Foot is at the Orifice, that the other lies along the Child's Body ; in this Case also the Difficulty is increased, by how much the Foot is suffered to come forth ; as the other, at best is not easily brought to its Place ; the Method of doing it is as follows : Introduce your Hand into the Womb along the misplaced Thigh, till you come to the Leg, which bring parallel to the Thigh by bending the Knee ; this brings the Foot near the Orifice, which must be brought forward as far as the other ; after this the Operation is performed as before directed.

WHEN the Child is large, in a more than ordinary erect Position, and the Quantity of Water contained in the Membranes but small ; the first Efforts of the labouring Patient not being sufficient to turn it in the Womb,

Womb, the Knees sometimes fix themselves at the Orifice ; in this Case the Operator will find the Necessity of being well skilled in that Part of Midwifry callèd the Touching, or examining pregnant Women ; for when the Orifice first begins to dilate, the Knee appears very like the Head, from its uniform Roundness and Hardness ; and really to know the Difference in the Beginning of Labour, is to be acquired rather by Practice than any particular Description ; but when it is so far advanced, that the Finger can be moved round it ; the Size and Want of Sutures, soon discover the Difference ; but the Excellence consists in making this Discovery before the Labour is thus far advanced ; for in this, as in all other preternatural Labours, the Difficulty increases as the Operation is deferred.

WHEN there is a Certainty that the Knees present, the more the Orifice is dilated by the Fingers, the less will the Child advance into the narrow Part of the Pelvis ; and consequently the more Room there will be for the Operator's Hand, to reduce the Feet to their proper Direction, which must be done
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by introducing a Finger upon the Ham of the Child, that is, between the Calf of the Leg and the Thigh ; and raising the Thigh towards the Mother's Belly, there will be Room made towards the Os Sacrum, for the Extension of the Leg, which is to be performed at the same Time that the Thigh is raised ; this being done, the other must be treated after the same Manner, in order to have the Patient happily delivered.

BEFORE we finish our Discourse of Deliveries, where the Child comes with the Feet foremost, it will not be amiss to take some Notice of Mr. DEVENTER's Chapter on this Subject.

HE first begins by informing us how easy and succesful an Operation it is ; that it is scarcely to be reckoned among the preternatural Deliveries. Certainly if he practised according to the Directions he has given (which he declares he did) he must have found it quite otherwise ; or else, the Women of *Holland* are formed quite different from those of this Country or of *France*. He in a very contemptuous Manner decries
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the Practice of MAURICEAU, and in short all others, for bringing forth the Arms of the Child before, or separate from the Head ; positively affirming, that the Arms and Head may be brought forth together, with as much Ease, and infinitely more Safety, than separately ; at the same Time accusing the Ancients of Ignorance, for giving such Directions ; and the Moderns of Cowardice, for not venturing on a Method, so much more expeditious and safe.

It is obvious to every one who has practised Midwifry, how much Pain and Labour a poor Woman must undergo, to bring forth the Head of a Child by itself ; (for in that consists the whole Difficulty) how great then must the Torture be, if it were possible to drag it forth by main Force, with an Arm at each Side ; I must own I think it the greatest Act of Inhumanity to attempt it. The Arms are brought forth with the greatest Ease, as has been shewn in speaking of the Delivery of Twins.

Mr. DEVENTER's Reason for prescribing this Piece of Cruelty, both to Mother and Child,

Child, was lest the Orifice of the Womb should contract about the Infant's Neck, and thereby run the Risque of having the Head separated from the Body, as has happened to PORTAL and others.

HE does not consider that the only Place where the Contraction of the Orifice might hinder the Exit of the Head, is under the Chin ; and that there are repeated Directions to prevent this Danger, by putting a Finger or two into the Child's Mouth, before the Body comes past the Shoulders ; which effectually keeps the Head free from any Hazard. As for his Assertion concerning PORTAL, I shall never believe that the Accident happened by not bringing forth the Head and Arms together ; nor that it was by any means from improper Conduct, that the Head was severed from the Body ; for to my certain Knowledge, it is as impossible to bring a Head of a common Size, through the Pelvis of some Women, as to atchieve any other Impossibility that can be imagined. I brought a Child forth by the Feet, where I was obliged to separate the Body from the Head ; and I don't think it Vanity to affirm, that it

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was not occasioned by any bad Practice ; the whole History of which shall be given in its proper Place.

IF the Difficulties which we have hitherto recited, from the unfortunate Situations of the Infant in the Womb, may be allowed to be extraordinary ; how much then must every Circumstance be aggravated, when this grievous Accident happens, to two or more Children at once in the same Womb ; here the Mother, each Child, and the Operator also, are particularly embarrassed ; the Water is very small in Quantity ; the Operator's Hand has not Room to exert itself ; the wrong Situation of one, hinders the setting right of the other ; in short every Misfortune of the one, adds to the Distress of the other.

IT has been before mentioned, how necessary it is for a Surgeon practising Midwifry, to be perfectly calm and composed, in the Performance of all his Operations ; and here especially that Caution is strictly necessary ; for when he first enters his Fingers into the Womb, he will probably find such a
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Confusion of Hands and Feet, as may well amaze the most steady minded Person.

IN this Situation of Affairs, the Operator must first distinguish perfectly between Hands and Feet, by the Characteristicks already laid down ; and taking hold of the Foot next the Orifice, or rather that which is most disengaged, separate it as much as possible from any Interruption ; and slide his Hand along the Leg and Thigh, till he goes as far as the Child's Body, where he must move his Fingers to the opposite Thigh, which with the Leg he must bring to a parallel Direction with the other ; and in what Situation soever they be, they must be brought to the Orifice, according to the particular Directions already given for each Purpose, when we supposed but one Child in the Womb.

IT may perhaps be demanded how it is to be discovered by the first Examination, whether there be really two or more Children in the Womb ; I answer that it is impossible to be certain of it, except you can feel two Bodies or two Heads ; however it is absolutely necessary, when the Child is in a pre-

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ternatural Posture, to act with the same Caution as if there were a Certainty of Twins ; for suppose that upon the Eruption of the Waters, two Feet should present to the Orifice, and that the Operator perceives no Interruption to the Extraction ; should this Child be immediately brought forth ? No ; for it may very possibly happen that there is another, and perhaps with its Head between the first One's Legs ; which, if they were drawn forth in this Manner, both must be destroyed before the Mother could be delivered. The different Circumstances whereby one may be deceived in this respect, may be varied infinitely ; as a Hand and a Foot coming singly, or a Foot of different Bodies, and so forth ; wherefore the Operator must omit nothing whereby he may be convinced of the Certainty of what he is going about ; and the sure Way to avoid these dangerous Mistakes, is by sliding his Hand from one Foot, along the Leg and Thigh, till he comes to the Body, and so bringing back his Hand by the Thigh and Leg of the other Side ; this at the same Time makes sure of the Feet of one Body, and also discovers if there be any Thing
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in the way, that might impede their coming forward.

THUS far have I faithfully delivered (according to the best of my Abilities) all that occurred to me in relation to preternatural Deliveries, where the Operators Hand is capable of affording Relief; the only Thing that now remains, before we come to those Labours where we are necessitated to use Instruments, is the Extraction of a Mole or False-Conception.

A Mole or False-Conception, is a fleshy Substance growing in the Matrix, from what Cause I shall leave to others to decide; our present Intention being only to extract it as an extraneous Body. It is of different Sizes in different Persons, according to the Time it has been in the Womb, in some weighing not above an Ounce, in others perhaps Forty; the longer it remains in the Womb, the larger it grows, and consequently the more dangerous; it adheres to the Womb like the Placenta, but has no Funis continued to it; the Formation of it, is generally attended with the Symptoms of Pregnancy, but its

Continuance is uncertain ; sometimes coming away like an Abortion, at the End of two, three, or four Months, with the same Discharges of Blood, though commonly more violent ; sometimes it remains many Years, and becomes Scirrhus, which Disposition it communicates to the Womb, so that its Extraction becomes impossible.

FOR some Months it is impossible to distinguish between a true and false Conception, the same Symptoms being common to both ; but in about three Months, if the Patient instead of having her Belly grow full, and somewhat large, perceives a particular Hardness, being a little fore in the lower Part of her Belly, between the Navel and Os Pubis, then there is Reason to suspect a False-Conception ; which is confirmed in five Months at most, by her not becoming quick as it is usually expressed ; for it has no Motion except what is communicated to it by the Action of her who bears it ; for when she uses any extraordinary kind of Exercise, this is moved, which from its Weight is very perceivable to her ; so that many have been deceived by this spurious Motion, and
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thought they were quick, perhaps for a whole Year together or more, till the great Length of Time has convinced them of their Error.

As soon as the Existence of this extraneous Mass can be certainly discovered, it is necessary by some Means to procure the Discharge of it; which must be done by the Help of such Emenagogues as the Physician shall think proper, and by the Surgeon's Hand; but a Person should be very cautious how he interferes in a Matter of such Consequence, especially before the usual Time of Gestation be expired; for the most experienced may be mistaken.

MOST commonly this fleshy Mass comes away before the End of nine Months, after the manner of an Abortion, that is, with an excessive Flux of Blood, either with or without Labour-Pains; when this Flux happens, the Hand must be immediately introduced into the Womb, and its Contents whatever they be, must be extracted; if it be a Mole, it must be brought away after the same manner that the Placenta is, when the Funis is broke, which has been already described. If

it continues after nine Months, without having apparent Motion, it must be brought away with all speed, for the longer it remains the stronger is its Adhesion to the Womb, and consequently the more difficult its Extraction; which must be brought about by the Help of Medicines as above, whereby if possible to promote some Discharge of Blood from the Womb; which at the same Time forwards the Relaxation of the Orifice, and facilitates the Separation; which must be farther promoted by dilating the Orifice with the Finger as has been often described; and so extracting as above; observing strictly not to leave any Part how small soever in the Womb, for that might produce the like Accidents as if the whole were left behind.

To shew how easily one may be deceived in Matters of this kind, I will trouble the Reader with the History of a Woman whom I delivered of a False-Conception:

IN *April* 1740 I was sent for by an Iron-Monger whose Wife was in Labour, for which Purpose I was retained four Months before, from which Time I frequently visit-
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ed her, and always found her reasonably well, and as it was her first, have asked her if the Child's Motion was strong and lively ; she answered, that she was no Judge of that Particular, but that she constantly felt it stir. I found her Pains come on but very slow, and a small Appearance of Blood at every Period ; having not the least Relaxation of Vagina or Os Tincæ, I left her for the Space of three Hours, in which Time I delivered another Woman ; on my Return her Pains were much increased, but not the least Dilatation ; in short every Circumstance contributed to make me imagine that it would turn out such a Labour as that where the Sternum presented, with this remarkable Difference, that whenever I touched the Orifice, though never so slightly, she roared extravagantly, complaining of a most extraordinary Pain which it caused in her Back, this really hindered me from giving her such Assistance as was necessary ; for her Friends thought I did something very cruel at every Examination. Thus we went on for twelve Hours, at the End of which Time, I gave her a quieting Draught, which composed her for an Hour and a half, and intirely removed that terrible

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Complaint when the Orifice was touched; wherefore I proceeded with all convenient Speed to dilate the Parts; upon the first Entrance of my Finger, I was much surprized to feel nothing but a soft fleshy Substance, I knew it was not the Placenta, as the Discharge of Blood was very inconsiderable; and it was reasonable to imagine, if there was any extraneous Body contained in the Womb with the Child, that it would not come foremost if the Infant were alive; wherefore I asked how long since she felt it stir, who answered that she had felt it within the Space of half an Hour; which put it beyond all doubt, as I thought, that there was a Child; however first, my Business was to bring away what offered, which I attempted but could not by Reason of its Size, till I had divided it into three Parts by breaking it with my Hand; when they were extracted I was more than ever surprized to find the Womb was quite empty. This just serves to shew, how little the Mother's Account is to be depended on in Matters of this kind; it also gives another Instance of the Orifice not dilating, notwithstanding the Mother's Efforts.

P A R T I I I .

TH E remaining Part of this Treatise shall be wholly taken up in the Illustration of that Part of Midwifry, where the Mother's Life is not to be saved, but by bringing away the Child, either whole or separately by the Help of Instruments.

THE Reasons for my not interspersing these, occasionally with other preternatural Cases, was first to avoid Confusion, by having too many Things together ; I also thought, that tacking them to every Case where Instruments might be necessary, would make the Use of them too familiar ; for I would have a Man-Midwife if possible, an Adept in every other respect, and his Judgement and Sagacity perfectly confirmed, before he even thinks of the Use of Instruments : For a young Practitioner should seriously and with the greatest Deliberation, consider the doubtful, nay dangerous Consequences of it ; that it is absolute Danger, not to say Death to the Child, and
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the Mother is never wanting in her Share of the Risque ; wherefore I cannot help owning that though I have gone through the foregoing Part of this Treatise with great Pleasure, yet what is to come strikes me with Horror : For in the first Place, it is very terrible to reflect on the desperate Circumstances of the wretched Patient in this Extremity : And secondly, least I should even seem, by any unfortunate Expression, to encourage this Practice, except when absolutely unavoidable ; that is, first, when there is a Certainty of the Infant being dead, and also, that (from some Causes hereafter to be mentioned) there is no Possibility of bringing it forth by the Help of Hands only ; for the Child's Death is not a sufficient Warrant for the Use of Instruments ; the Mother being subject to their ill Effects, as well as the Child, though not in so great a Degree ; for let us consider the Condition of the Patient, when there are sharp Hooks, Knives of various Kinds, Forceps, &c. thrust into the Womb, and beyond the certain Direction of our Hands that are to put them in Action ; let us also consider at the same Time, how impossible it is for a poor Creature under the most dreadful Apprehensions,

prehenſions, to avoid ſtarting at every Motion of theſe foreign Materials in her Body ; and the Conſequences of ſuch ſtarting, at the Inſtant that the Inſtrument is acting with the above Diſadvantages, is better imagined than expreſſed ; the leaſt Scratch on the inner Coat of the Womb or Vagina, may cauſe irreparable Damage.

SECONDLY, if there be ſufficient Matter to excite our Humanity and Circumſpection when the Child is dead, how infinitely muſt it be increaſed when it is living ? Here we have not only the Mother's Danger to fear, but even the Murder of an innocent Babe. Dreadful Apprehenſion ! If through Raſhneſs, Fear of loſing Reputation by the Mother's bad Succeſs, or in ſhort, through Ignorance, we ſhould bring a miſerable, help-leſs Infant to an untimely End ; and that by Reflection, we ſhould become ſenſible of our Error, what a Life of agonizing Remorſe muſt we lead for ever after ! And how ſhould we expect to answer it to our Creator, by whoſe providential Care we eſcaped the ſame Danger ? A Murderer of this Kind, is next
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in Guilt to the Mother who murders her own Child.

NOTWITHSTANDING that I would use all my Endeavours to deter Men from the rash and imprudent Practice of instrumental Operations in Midwifry ; yet it is not to be denied, but that such Operations are very useful and necessary, when undertaken with Caution, Skill and Prudence ; and that, even when the Child is alive : For the Advantage is much greater than is usually imagined ; the general Opinion being, that we save the Mother by destroying the Child, who otherwise might have lived ; but I say the Matter is not strictly so ; for where the Destruction of the Child is necessary, (as doubtless it sometimes is) in this Case if it were deferred, both must certainly perish in a short Time ; so that the Mother is saved by the Child's dying perhaps only an Hour sooner than of Necessity it otherwise would.

THE greatest Difficulty therefore, is to judge the exact Time when this is necessary ; and I must declare my Opinion, that it is too great an Undertaking, for any one Man singly

ly to resolve on, especially where there are others to consult with ; wherefore it is much to be wished, that it were more the Fashion, to call in the Assistance of another Person, when the Case is in this Degree of Perplexity, for it is very reasonable to imagine, that the most experienced in this Dilemma, may have need of a concurring Judgement, when his Thoughts are confused, perhaps by the Loss of his Rest, hard Labour, being four and twenty Hours or more in the same Chamber, hearing the Cries and Moaning of the Patient, and being obliged to answer the many absurd Questions of the By-standers, and in short, by the great Distraction that must be the Result of the whole Affair ; in this Case I say, it is hardly possible that a Man can have the distinct Exercise of his reasoning Faculties, at this Time so particularly requisite ; if a second Person free from these Inconveniencies agrees in his Opinion, his Mind and his Conscience are at ease, and his Reputation remains free from Censure. Both Physicians and Surgeons call in others of their Profession, to consult in all doubtful Cases, without the least Apprehension of having their Judgement in any Respect called in Question ;

Question ; and how much greater must the Necessity of it be in our present Case, where two Lives are at once at stake.

THERE might be many more Arguments produced to prove the Necessity of Consultation, in the Practice of Midwifry, yet notwithstanding all this, it is so little the Custom, that a Man who thinks it his Duty, cannot do it without the Imputation of Ignorance ; for my Part, I have often desired the Opinion of my Brethren in doubtful Cases, where I thought it necessary to destroy the Child ; and I have found that I have been censured by the Patient's Friends, alledging that I was incapable of my Business in Matters of Difficulty, without the Assistance of some other Person ; and that surely there never was a Man-Midwife who had Occasion for another's Help ; this has been affirmed to me more than once, by some of my Friends who had accidentally heard it ; though I always tell the Patient's Husband, or some near Relation, my Opinion of the Matter ; and that I would chuse, for their Satisfaction as well as my own, to have the Concurrence
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of another's Opinion, before I proceeded to any Operation of this Kind.

IF what has been said on this Occasion, may serve as a Warning to young Beginners, we may the more boldly proceed to the Performance of our Operations, beginning with those which partake least of Difficulty and Danger.

IT sometimes happens, though the Labour has succeeded so well, that the Head of the Child has made its Way through the Bones of the Pelvis, that it cannot however come forward, by Reason of the extraordinary Constriction of the external Orifice of the Vagina; so that the Head, after it has passed the Bones, thrusts the Flesh and Integuments before it, as if it were contained in a Purse; in which Condition if it continues long, the Labour will become dangerous, by the Orifice of the Womb contracting about the Child's Neck; wherefore it must be dilated if possible by the Fingers, and forced over the Child's Head; if this cannot be accomplished, there must be an Incision made towards the Anus with a Pair of crook-

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ed Probe-Sizars; introducing one Blade between the Head and Vagina, as far as shall be thought necessary for the present Purpose, and the Business is done at one Pinch, by which the whole Body will easily come forth.

AFTER the Delivery, the Wound must be taken Care of; if the Incision be made so near the Rectum as to weaken its Contraction, the Wound must be united by a Stitch, at the same Time leaving some of it open at the Orifice of the Vagina, which must be preserved so, by keeping some Lint between the Lips, by which means we may prevent the like Inconvenience another Time; if the Wound be not very long, there is no need of a Stitch, but on the contrary it must be kept open by the Intervention of a Piece of Lint, till both Lips heal separately; this Lint must be dipt in some vulnerary Ointment, and a Compress dipt in Brandy over it, which must be often changed on Account of the Discharge of the Lochia.

WE have before observed that the Orifice of the Womb, from the Cicatrix of some former

former Wound or Laceration, may be very slow and troublesome in its Dilatation; however as the Impediment is but in one Point, the Work will certainly by proper Assistance from the Fingers be performed; but it sometimes happens though very rarely, that this Orifice becomes Scirrhus, and that, to such a Degree, that it will admit of no Dilatation; when this is absolutely the Case, there is no Chance for saving either Mother or Child, but by making an Incision through the affected Part. However, as this very seldom happens, it is not much to be suspected; and as the Operation is obnoxious to the most melancholly Consequences, it should never be determined on from one Opinion only, except in a Country Place where there is no second Person to consult with; for we must consider in the first Place, that this Part is exceedingly nervous, nearly approaching to the Disposition of a Tendon, being whitish, hard, and its component Fibres in a constant State of Contraction; and consequently being wounded, would produce all the Symptomatical Effects, that such Parts are capable of, with many additional Aggravations from its near Alliance to all the other Viscera. Se-

condly, as it is continuous to the Intestinum Rectum on one Side, and the Bladder on the other ; what Danger must they be in of being wounded also ? Especially as we cannot have the Eye for our Guide, nor even the Hands but in a very confined Manner. Thirdly, suppose the Part be scirrhus ; it is very likely that this may hinder the Wound from healing for ever after, which will be a constant Reproach to the Operator ; for the ill-natured World will never consider the Necessity of the Action ; and the Patient's Friends especially, will calumniate him, as much as lies in their Power ; which may certainly be obviated, by having the Concurrence of one or more of the same Faculty in Consultation.

THESE Precautions being thoroughly weighed, if it be determined that there must be an Incision made in the Orifice, being Scirrhus ; it must be done by placing the Patient on her Knees as in other preternatural Labours ; first taking Care that the Rectum and Bladder, may be emptied of their Contents ; both which may be brought to pass by the Help of a Clyster, as going to stool will excite the Discharge

Discharge by Urine ; and then introducing the Fore-finger of the Left Hand, through the Vagina to the Orifice, having its Back to the Pubis ; with the Right Hand introduce a straight Bistoury of sufficient Length, having a Button at the End ; by the Direction of the Finger already in the Vagina, having the Edge towards the Finger ; this buttoned End must be thrust very gently into the Orifice, and then the Incision made very leisurely towards the Rectum ; this Incision must be proportioned to the present Exigency of Affairs ; the greater the Extent of the Scirrhus, by so much must the Solution of Continuity be increased ; taking all the Care imaginable not to cut so far as to go through the Substance of the Womb to the Rectum ; but as these Parts grow thick in Proportion to the Excess of the Scirrhus, as the Orifice of the Womb is brought very near that of the Vagina, by the Patient's Throws, and as it may well be imagined that no one will undertake such an Operation, who is not capable of making a Judgement of those concurring Circumstances, from his general Knowledge in Surgery ; I say from these Reflections, it is to be hoped that there is no Danger of hurt-

ing or destroying any Part, but just what Neceffity requires.

AFTER the Incision is made as far as the prudent Operator thinks he may venture, he must then dilate with his Finger, so as to get Admission for his Hand into the Womb, in order to bring away the Child by the Feet ; for after what is past, he must not think to wait for the Mother's Pains to bring it forth.

AFTER the Delivery, the Wound must be regarded ; however, there is not very much to be done for it, during the first three or four Days of the Lochial Discharge, except some particular Symptom should require it : If the Patient should have great Pain in that Part, and perhaps consequently be convulsed ; then indeed, there must be anodine emolient Injections immediately made use of, while the Physician does his Part, by ordering such internal Medicines as he shall think proper.

PERHAPS the Patient, by extraordinary Care, and I can't help saying good Fortune, may

may recover after this terrible Operation ; but when we consider the primitive bad Disposition of the Womb, and what it has now suffered, there is no great Reason to hope for Success ; of which her Friends should always be apprized ; if Matters should turn out well, the Surprise will be much the more agreeable.

THE most melancholly Case in Midwifry, is when the Child, though coming in a natural Direction, cannot be brought forth, either on Account of its extraordinary Size, or the bad Form of the Pelvis through which it is to pass ; here the most exact Nicety of our Judgement is particularly necessary ; if the Child cannot come forth by the natural Means, it must either be brought away by Force, or both Mother and it must perish ; which of these two Evils is to be chosen, I think admits of no doubt ; but the Difficulty arises concerning the Time that this is to be done ; if there be no obvious Distortion in the Pelvis, it is impossible to determine either from the Size of the Head or Dimensions of the Pelvis, whether it can come forward ; for a Moment of Time will pro-

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duce most surprizing Alterations in that respect ; therefore the only Direction we can depend on, is the Patient's Strength, for while that lasts, there are Hopes ; but when we find this much exhausted, she must be Delivered immediately by some Means or other ; we discover the Decay of Strength, by the Time she has been in Labour, by the Absence of her Pains, a Coldness seising her Limbs, her Voice becoming feeble so as scarcely to be heard, a depressed intermitting Pulse, Hippocratic Face, and so forth.

HAVING already endeavoured, as much as the Compass of these Sheets would admit of, to set forth the Advantages of Consultation in these important Cases ; I shall therefore say no more on that Head ; so that when it is determined that the Patient can hold out no longer in her present Circumstances, the Child must be extracted by such Instruments as shall be thought most convenient for the present Exigency.

If the Expulsion be impeded only by the Disproportion of Size in the Head and Pelvis, or the Mother's Weakness ; and not from
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any Distortion in the Form ; and if there be any Reason to imagine that the Child is living, or rather if there be not a Certainty of its Death ; in this Case, I say, the best adapted Instrument, is the large Forceps, which is in general Use all over *Europe* ; wherefore it needs no particular Description ; however it may not be amiss to give some Hints as to the Choice of them : We must first observe, that the two Extremities of that Part of the Instrument which is to take hold of the Head, should not approach too near each other ; Secondly, that there should not be too great a Space between the Middle of the two Sides composing this same Part, that is to say, that the two Sides which are to take hold of the Child's Head, should form an oblong Oval, rather than approach in the least to a Circle ; by observing this Precaution, the Child's Life may be often saved, for Instance : It is visible at first Sight, which Part of this Instrument is designed for taking hold of the Head ; and that each Branch of it must go beyond the Head, so that its Extremities must close about the Neck ; now if these Ends approach too near to each other, they may very possibly strangle the Child ; and again, if these

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two Branches be too much bent, so that from the Axis to their Extremities, they approach too near unto a Circle ; then the Mother is in Danger of having the Vagina bruised, by pressing forcibly against the Offa Ischia ; whereas if their Form was more oblong, the Pressure would be chiefly on the Child's Head, which Nature designed it should endure on this Occasion, and therefore formed the Bones of the Cranium accordingly.

BEING thus provided, we proceed to the Operation by placing the Patient on her Knees, as before directed ; always taking great Care to conceal the matter from her, by encouraging her, and promising a speedy Delivery. First then, we separate the two Sides of the Forceps, by unskrewing the Center-pin, which is the Axis on which they move ; here we must observe (for nothing must be omitted that may even expedite our Business) that this Center-pin skrews only into one Side of the Forceps, the other being left free to move on it, the Use of this Observation will appear presently ; the Operator must take that Side of the Forceps whose Perforation is without a Skrew, (being warmed and oil-
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ed) in his left Hand, and by the Help of the right , introduce it into the Vagina on the right Side, having its concave Surface next the Child's Head, thrusting it forward gently, till he finds the End of it has gone as far as the Neck of the Infant ; in this Position, the Handle of the Instrument will be at the left Side, where it must be held very firmly by the left Hand, not suffering it to move either up or down, which it will be very apt to do ; while he introduces the other with the right Hand only, at the left Side of the Vagina, directly opposite to its Fellow in every Respect, leaving the Handle of the first uppermost, which this must necessarily intersect, thrusting it forward as far as the other, till their Articulation meets, then putting the Pin through the uppermost, it skews into the one beneath ; when they come together, so as to be able to fasten in the Skrew-pin, the whole Difficulty of the Operation is over ; then the Operator must pull by the two Handles of the Forceps, with such a Force, as the Necessity of the Case requires, till he has brought the Head into the World ; and quitting the Instrument, take hold of the Head in his Hands,
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and bring it forth as in a natural Delivery. If the Difficulty proceeds from the Smallness of the Passage through the Pelvis, the Shoulders frequently stop ; in this Case he must endeavour to bring them forth, by introducing a Finger under each Arm-pitt as formerly directed ; if this does not succeed, the Handles of the above Forceps, are perfectly well contrived for this Purpose, having an Hook at each End, which are very easily put under the Axillæ, whereby the Child is infallibly drawn forth, if not monstrous, or very dropfical.

By the above Method the Child is often brought forth alive, nay it is my Opinion, that with a strict Observance of every Particular of the above Precautions, how trifling soever some of them may appear, that the Infant will never be destroyed by this Instrument ; but this much must be allowed, that the Child is most commonly dead before we come to the Operation, whereby the Instrument may be falsely accused.

NOTWITHSTANDING the Excellence of this Forceps, yet there are many Cases where
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the Head comes first, wherein it ought not, and cannot be used.

FIRST then, it should not be used, when there is a Certainty from the Indications already mentioned, of the Child being dead. Secondly, it cannot be used when the Impediment is from any Distortion of the Bones that form the Pelvis. Thirdly, when it proceeds from the Narrowness of the Pelvis, that is, when the Sacrum and Pubis are too near each other. Fourthly, when the Head has been so long in the Passage, that the circumjacent Parts are swoln. Fifthly and lastly, when by any Means the Head cannot advance so far as to be within reach of the Instrument.

Now we must consider that this Forceps, though very happily contrived for the Safety of the Child, yet at the same Time it is very capable of hurting the Mother; for it is allowed in the first Place, that the Head from its Size cannot make its Way through the Passage; yet it is brought away by Force, with the additional Bulk of this Forceps at each Side of it, which certainly must press very hard on the Ischia; and consequently the

the Parts between the Iron and these Bones, must be much bruised ; however we would willingly run the Risque of that, in Hopes of saving the Child's Life, which I have often done by the Help of this Instrument. But why should we subject the wretched Patient to this Danger when the Child is really dead ? especially as there is a much easier Method of doing the Business, both for the Mother and Operator, as shall be shewn presently, when we have given Reasons why this Instrument cannot be used in the Cases above-mentioned.

THIS Instrument is of no Use when a Distortion of some of the Bones of the Pelvis obstructs the Passage : For if the two Sides of it cannot be introduced at each Side of the Head in a direct parallel Line, the Joint whereby they are united, cannot be brought together, so as to skrew in, the above-mentioned Pin ; and consequently they cannot take hold of the Head. I think there needs no Argument to prove how easily the Distortion of the Pelvis may produce this Effect.

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WHEN the Hindrance of the Birth is from the Pubis and Sacrum being too near each other, the Head can never come forward enough to be within the Influence of this Instrument; for from the Mechanism of it, and the Nature of the whole Operation, it is evident that the Head must be far advanced in the Passage when the Forceps can be applied.

WHEN the circumjacent Parts are swoln, 'tis impossible to introduce the Instrument into the Vagina; I delivered a Woman who had such a Swelling of the Pudendum, that it was with Difficulty I could introduce a Finger into the Orifice of the Vagina, of which we shall have a fuller Account presently.

HAVING shewed where this is improper, we must now consider of another, applicable to each particular Case; beginning with the dead Child, which from all the Considerations already delivered, cannot be brought forth by any other Means.

Mr.

Mr. MAURICEAU has invented a Machine for this Purpose, to which he has given the Name of Tire-Tête ; of which he has given Figures in his Book of Midwifry ; he directs to make an Incision between the Sutures, large enough to give Passage to a round Plate, which is to be introduced into the Cranium ; this Opening is to be made by a broad two-edged Knife, of which he also gives a Figure ; for the Remainder of the Operation I refer to his Book, thus much being sufficient for our present Purpose ; wherefore let us now consider how far this Instrument deserves Applause.

THERE must be a prodigious deal of Trouble and Time taken up, to bring this Instrument into a State of Action ; first, there is a Difficulty in discovering the Sutures, for it is not the Fontanel that presents ; but that Part of the Head which is generally called the Crown ; which is the Meeting of the Lambdoidal and Sagittal Sutures, where it is by no Means an easy Matter to make an Incision large enough for the Admission of this Plate, for it must be made directly opposite the Entrance into the Vagina ; next, it is a tedious

tedious and difficult Operation to fix this Plate ; and after that, there are many Skrews and other Materials to be applied ; in short 'tis too complexed a Piece of Business to be used on this Occasion, and it will appear still more so, when it is proved that after the Incision, there is no Necessity for the Application of it ; for by this Opening, the greatest Part of the Brain may be evacuated, so as to lessen the Size of the Skull, in such a Manner that you may take hold of it with your Hand, and bring forth the Child without the Help of any other Instrument.

FROM this, together with Mr. MAURICEAU's easy Method of directing an Incision to be made in the Cranium, the Reader may well imagine that the Extraction of the dead Child, (even in the worst Circumstances) is a very easy Operation ; but I hope to make him sensible how very remiss our Author was, in making so slight of this first Part of his Operation ; where he directs the opening to be made by an Instrument which he boasts to be of his own Invention in the Form of the sharp End of a Pike ; these are his own

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Words, the Rashness of which is very surprising.

LET us consider now, even when the Head is within two or three Inches of the World, without the additional Aggravations of swelling &c. What Danger must the Mother be in of being wounded, at the Introduction of this two-edged Weapon? And how impossible must it be for her to escape, when by any of the above-mentioned Evils, the Head is at a great Distance from the external Orifice of the Vagina, or inclosed by the above Swelling? This will appear plainer, when we consider that the Texture of the Vagina is such, that though it will give Passage to a large Body, yet if we introduce a Body into it no bigger than a Goose-Quill, it will be contiguous to the Vagina on all Sides; so that there is never an actual subsisting Cavity in it, except by the Intervention of some foreign Substance; add to this the Patient's constant Motion of her Posteriors, from her Pain, Weakness, and terrible Apprehensions; and what must be the Consequence of the least Motion of those Parts, when this Knife is naked in the Vagina?

Vagina? I hope the humane Reader will paint to his own Imagination, the dreadful Danger of a distressed Patient in these Circumstances, in much livelier Colours than is in my Power to express, whereby he may be inclined to favour any Attempt, how weak soever, to prevent this Grievance.

NOTWITHSTANDING what has been said, the safest and most easy Method of extracting the Child under the above-mentioned Misfortunes, is by evacuating the Brain, by an Incision in the Cranium, between the Sutures; wherefore our present Duty is to endeavour to discover some Means, whereby this Method may be pursued, without running the Risque of hurting or destroying the Patient; in order to which, I shall beg leave to give the following History.

IN *June* 1738, I was sent for to the Assistance of a Woman on the upper Comb, who had been in Labour two Days and as many Nights; the Midwife who attended her told me, that notwithstanding her Pains were very strong during the whole Time, yet she could not determine what Part of the

Child presented, which upon Inquiry, I did not much wonder at ; for the Space between the Os Sacrum and Pubis was surprisingly narrow, infomuch that the small Portion of the Head, which was forced between them, by the long Continuance of her excessive Pains, was not above two Inches thick. Though there was no Doubt of the Child being dead, and though there was no Method of bringing it forth but by evacuating the Brain ; yet to avoid Censure, I told her Friends the State of her Condition, and at the same Time desired a Consultation, which they seemed much surprized at, however they granted it ; we immediately agreed to lessen the Size of the Head, by removing Part of the Brain : The Part whereon I was to operate was at a great Distance from me, which still increased my Antipathy to cutting Instruments ; wherefore I thought that a Pair of Sizars might be at least introduced through the Vagina with less Danger than a Knife ; which made me resolve on the Use of a strong Pair, which I had with me of sufficient Length, which were exercised in the following Manner :

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I introduced my left Hand into the Vagina, and by its Direction, the Sizars (quite closed) with my Right, fixing their Points on my Finger which lay on the Child's Head ; then opening them I let a Branch slip by each Side of the Finger, till both Points arrived at the Head, at about an Inch and a half Distance, which I thrust forcibly into the Skull, till I was sure the Bone was penetrated, and with all the Strength of my right Hand divided the Space between the two Points, which made a sufficient opening ; I then began to squeeze the Bones of the Cranium together, which is very easily done when there is at the same Time a Way for the Brain to make its Exit ; when I thought I had lessened the Bulk of the Head sufficiently, I thrust two of my Fingers into the new-made Opening, and by bending, fixed them like Crochets, whereby the Delivery was soon completed, though the Shoulders made great Resistance.

THIS Method, though preferable to Mr. MAURICEAU's two-edged Knife, and Tire-Tête, was but the Work of Necessity, and consequently a poor Contrivance ; which put me upon considering, whether a cutting Instru-

ment might be contrived, so as to be introduced into the Womb, without endangering either it or the Vagina ; which Design I did accomplish very much to my own Satisfaction ; and hope it may prove so to the rest of the Faculty. I have used it where no other Instrument that ever I saw, could possibly be applied with Success ; and in many other Cases where to me it seemed beyond all Doubt, that no other could have answered so well, as I shall endeavour to prove in the Sequel, both from the Nature of the Thing, and Histories of Matters of Fact.

FIRST then, I considered that the Vagina presses almost Undiquaque on every Thing that passes through it, how small soever ; and therefore that nothing could defend it from the Mischiefs of a cutting Instrument, but something in the Nature of a Sheath, wherein this Knife must be hid, till it be conducted to the Part whereon it is to act ; this Contrivance is to be seen at large in the annexed Figures, by the following Directions,

P L A T E I.

Representing an Instrument which we shall distinguish by the Name of Terebra Occulta; being a Piercer, to perforate the Head of an Infant, in order to lessen the Size of it, by evacuating Part of the Brain; this Piercer is concealed in a Sheath, for the Preservation of the Mother, till conducted to the Part where it is to operate, as we are now going to demonstrate.

FIG. I. Shews the Terebra Occulta, with the Blade concealed in the Sheath, by means of a Spring.

A. The Handle to which the Piercer is continued.

B. The Continuation as shall be shewn in Plate 2.

C. D. The Capsula or Sheath, whereby the Mother is defended from the sharp Edges of the Piercer; being an Iron Canula, containing nine Inches in Length; round at the End marked C. to contain the Spring, and for the same Reason larger than the End D. being above half an Inch Diameter; whereas it grows smaller and flat, as it approaches the End marked D. in the same Proportion as in the Figure.

FIG. II. Shews the same Instrument, having the Piercer thrust forward out of the Capsula as when in Action.

A. the Handle.

B. C. The Capsula.

D. The Blade of the Piercer which is to perforate the Skull.

Note that in FIG. I. the Distance between the Handle A. and the Canula C. is directly as long as the Blade D. in FIG. II.

P L A T E II.

Representing the Terebra Occulta with half the Capsula removed, in order to shew the Spring, whereby the Terebra retires into it when the Operation is performed; and also to shew the Continuation of the Blade to the Handle.

FIG. I. Shews the Instrument as above, when concealed in the Capsula.

A. The Handle.

B. The Continuation from the Handle to the Blade E. This is round and of equal Thickness, as far as it is concerned with the Spring F. and grows flat and small as it approaches the Blade.

C. D. The Capsula as above.

E. The Terebra; this is about three Fourths of an Inch long, and one Fourth and half broad; being thick in Substance, and not sharp, having what is generally called a round Edge, lest any Particle of it should break off, and remain in the Rugæ of the Vagina, which might have very bad Consequences.

F. A Worm-Spring, made of strong Steel Wire, having one End fixed in to the Terebra marked a. and the other into the Capsula marked b. so that when the Handle A. is pushed to the Capsula C. the Point (a) of the Spring is forced out of its natural Posture; to which by its Elasticity it will restore itself, and consequently the Terebra to which it is fixed.

FIG. II. A. B. C. D. shew the Instrument with the Blade thrust out of the Capsula and the Spring on the stretch.



Fig: 1

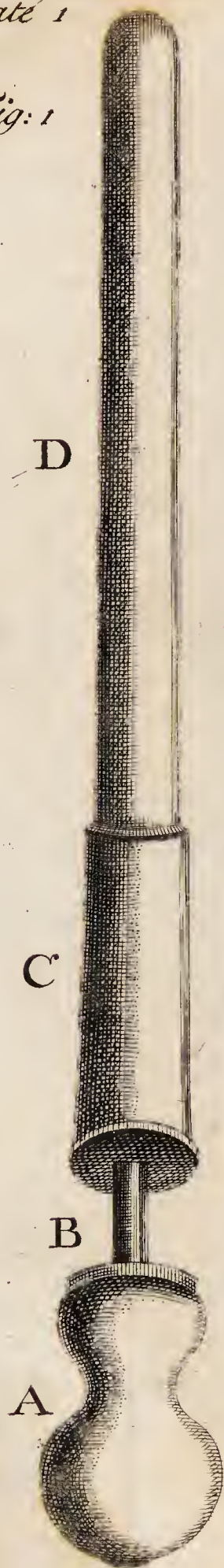


Fig: 2



Fig: 1

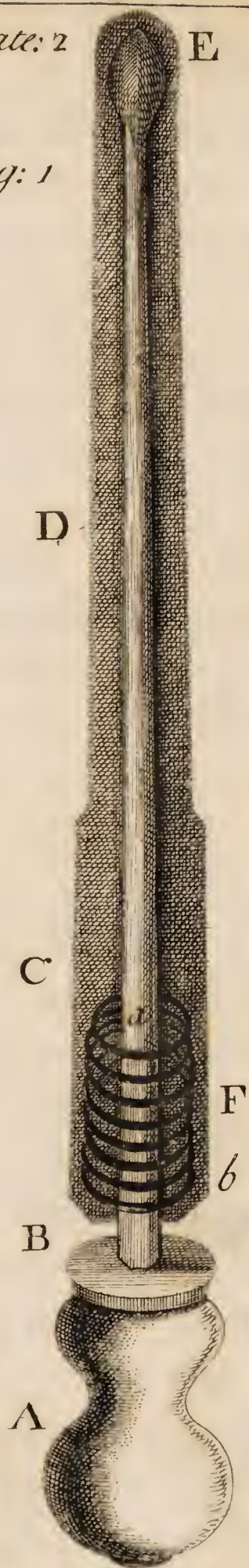
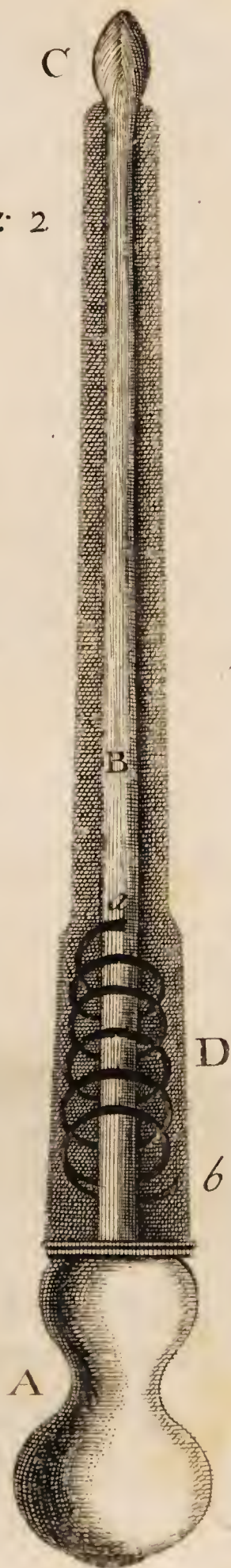


Fig: 2





By the foregoing Figures and their Description, I hope it is evident how much the Instrument contributes to the Mother's Safety, and how effectually it is capable of doing the Business required ; if I thought there was any Sort of Objection to the Use of it, it should most certainly be mentioned here ; but having used it several Times, I found it answer every Expectation completely ; the particular Manner of operating with it, shall be shewed occasionally, in giving the Histories of some Cases where the Application of it has been necessary.

IN *December* 1739, I was conducted to a poor Woman in *Stephen-street*, who had been in Labour six Days ; inquiring for the Woman who attended her, I was informed that she had not been there for two Days before, having left the Patient on Account of her Pains ceasing, desiring that she might be sent for when they returned ; which not happening during the Space of two Days, they sent for me ; I found the external Parts of Generation so prodigiously swelled, that it was with Difficulty I could find a Passage for my Finger into the Vagina. This was
the

the first Oportunity I had of trying my new Instrument ; and indeed had I been unprovided of it, the Operation could never have been performed without destroying the Mother before the Child could have been come at : With some Difficulty I found the Child's Head, though at the very Orifice of the Vagina, and fixed in such a Manner, that one might have imagined it an inseparable Part of the Patient ; upon bringing back my Finger, there issued out an Ichorous Humour of a most cadaverous Smell ; which made me of Opinion that the Head had been thus far advanced at least four or five Days, and consequently made me suspect what I was afterwards confirmed of, namely, a Mortification of the circumjacent Parts of the Mother. The Stench which filled the Room, and Time of her Illness, were sufficient Evidences of her Danger ; wherefore I took no Time to make a Prognostick to her Friends, but immediately went to work for her Relief, though too late.

FROM the above Circumstances, it is evident that there was no Possibility of searching for Sutures, or the softest Part of the Cranium

nium wherein to make the Perforation ; wherefore taking the Capfula at the Part marked C. Fig. I. in my Right Hand, and thrusting it boldly in, (having nothing to fear) till I found it stop at the Child's Head ; then with my Left Hand I pushed the Handle marked A. with such a Force as was sufficient to pierce through the Skull, and the Handle immediately re-assumed its Situation by means of the Spring ; then removing the Instrument, I introduced my Finger into the Perforation, and as far as it could reach, broke all the Substance of the Cerebrum, which immediately issued forth, such was the Compression which the Head still sustained ; after this the external Parts seemed much more disposed to relax than before, so that by the Help of a Fomentation of Bran and Water boiled, which was the most expeditious Remedy that could be then got, I obtained a Passage for my Hand, so as to lessen the Size of the Head by evacuating the Brain, and brought forth a Child almost rotten ; immediately after the Delivery, the Patient made four Quarts of Urine ; having had no Evacuation, either this Way or by Stool for four Days before.

FROM

FROM the long Continuance of this Woman's Labour, her Weakness, and the prodigious foetid Smell of her Uterine discharge, I thought it impossible for her to live many Days ; in about eight Hours after her Delivery, I found her perfectly easy, having slept almost two Hours ; but her Urine came away insensibly ; the next Visit, I was told that both Stool and Urine came away insensibly through the Pudendum, which confirmed me in the Opinion that all the Parts contiguous to the Child's Head were mortified ; in this wretched loathsome Manner did this poor Creature live for the Space of six Weeks.

LET us now consider the Head remaining in the Womb separate from the Body : This indeed is a most melancholly Circumstance, with this Aggravation, that we have but very lame Assistance from our Predecessors for the Removal of it : Mr. MAURICEAU who is generally esteemed our principal Guide in Matters of Midwifry, has laid down various Methods for the Reader to chuse out of, as we shall now remark.

He

HE first tells us that the Difficulty of this Operation is such, that two or three Surgeons have successively forsaken the same Operation, not being able to perform it, and the Patient consequently lost; this, he saith he is of Opinion would not have happened, had they done as he then directed; which was, first to introduce the Right Hand into the Womb, and find out the Mouth, into which put two Fingers, and the Thumb under the Chin, by which hold to draw it forth gradually.

Now let us consider what the Cause may be that hinders the Extraction of the Head with the Body, be it Putrefaction, monstrous Size, or a preternatural Form of the Bones composing the Pelvis: If it be Putrefaction, himself allows that the lower Jaw is not a sufficient Hold, for the Head to be extracted by; but in any other Case seems positive of its Sufficiency. Let us suppose then, that the Difficulty arises either from the monstrous Size of the Head, or preternatural Shape of the Pelvis, the Argument being equal in both; is not the natural Connexion of the Head to the Trunk, by the Intervention of so many Articulations and Muscles, with the additional

additional Advantage of the Shoulders making Way for it ; I say with all these Advantages, is it not more likely to bring forth the Head, than a single Hold of a Finger and Thumb, on the lower Jaw ? Besides, I will venture to affirm, that the Hand being introduced into the Womb, and the Finger and Thumb fixed as if they had hold of the lower Jaw, could not be extracted without great Difficulty, though there were nothing for them to bring away ; for the Hand must be contracted into its narrowest Compass, either to be thrust into, or brought out of the Womb.

AGAIN he advises, when this Attempt fails, to endeavour the Extraction by the Help of a Crochet, which he directs to be thrust into the Eye, Ear, behind the Head, or into some of the Sutures. As to this Practice, I cannot help giving my Opinion, that the Use of Crochets in any Case, is very blamable, but especially when the Head is severed from the Body ; it is well known to every one conversant in the Practice of Midwifry, that the Application of a Crochet is very difficult, even when the Head is in the Vagina, and kept steady by its Connexion to
the

the Body; and when it does happen to be fixed, the Extraction of the Child thereby, is very dangerous; for we cannot be certain of the Hold it has taken, and if it should slip in the Operation, as it may in the Hands of the most able Operator, the Patient is in great Danger of being ruined.

IF these Assertions be allowed, the Danger must be much greater, when the Head remains disengaged in the Womb; In the first Place, how is it possible for the single Hand in the Womb, to hold the Head, so as to make a Resistance equal to the Force of a Crochet perforating some of the Bones of the Cranium? But supposing the Possibility of it, (which I own I cannot allow) what Man in his Senses would venture to draw forth the Head by this Instrument; for should it slip, as in all likelihood it must; the Womb and Vagina would not only be wounded, but probably a Piece be torn away, exactly like that which happens to wearing Cloaths, that are tore by a Nail or Tenter-Hook; besides, if we consider the Matter, it will appear that the Head cannot be extracted by any Force whatsoever, if it be not in such a Direction, that

that the Sutures will close as it advances into the Vagina ; which can rarely happen when attempted to be drawn forth by a Crochet.

OUR Author also mentions an Expedient for extracting the separated Head, by introducing a soft Fillet, or Slip of Linnen, about four Fingers in Breadth, and three Quarters of an Ell in Length ; and by holding the two Ends of it in one Hand, and introducing it double with the other into the Womb ; and by fixing the Head in this, as a Stone in a Sling, whereby to draw it forward ; indeed there is thus much to be said of this Operation, that there is no Danger of committing any Violence on the Patient ; however there are very little Hopes of Success from it ; for this Piece of Linnen must be much wrinkled before it arrives in the Womb ; and after that, how impossible must it be to fix the Head in it, with a single Hand so much confined, and out of Sight ? Mr. MAURICEAU acknowledges that he never put this Method in Practice ; but that he thinks it a very ingenious Invention.

Mr.

Mr. AMAND, a *French* Surgeon, made an Improvement on this last Invention of Mr, MAURICEAU's, upon which Foundation he has compiled a large Octavo Volume of Cases in Midwifry: Instead of a Sling, he puts the Head into a Purse with running-Strings; this Purse, (which in Texture and Shape, is like the Caul of a Periwig) is to be fixed to the Back of the Operator's Left Hand, by means of Loops for that Purpose; in which Manner it is to be conveyed into the Womb, and so continued till he has taken hold of the Head in his said Hand; and then, by means of two Strings, which are continued to the Purse, at the Ends of the Fingers, it is to be pulled over the Head, and the Hand removed; the Reader may have a clearer Idea of this Matter by turning to his Book, where this Machine is represented in Copper-Plate.

THE Difficulty of putting the Head into this Purse, is full as great (if not more so) as putting it into the Sling; but admit the Possibility which is much to be doubted; the Head is not the nigher being extracted, except where the Separation is caused by Putrefaction; for neither of our Authors consider,

that the Cause of Separation is from the Disproportion of Size between the Head and the Passage through which it is to make its Exit. Wherefore the first Thing to be done, is to lessen the Size of the Head (without which the most ingenious Machine is trifling and insignificant) after which there needs no other Contrivance than the Operator's Hand to bring it away.

Mr. MAURICEAU tells us, if all the above Expedients prove unsuccessful (which by the by, shews his Diffidence of them) that we must then make an Opening between the Sutures, in order to evacuate some of the Brain; for which Purpose he recommends a crooked sharp-pointed Knife, of sufficient Length to reach into the Uterus, which is to be directed by the Left Hand being in the Womb before it; this is a most dreadful Weapon to be thrust naked into the Matrix; the least sudden Motion of the Patient may absolutely murder her; for the Point of this crooked Instrument is at least seven Inches from the Handle, which is the Center of its Motion in the Womb, and it is visible how much the
Action

Action of the Point must be increased, at this Distance from the Center.

THESE Considerations I suppose made AMBROSE PAREE, and GUILLEMEAU propose a very short Knife, that might be inclosed in the Operator's Hand, till introduced into the Womb; but without all doubt, they never made Use of this Instrument; for in the first Place, it would be impossible to introduce the Hand, in a Form necessary to contain this Knife; and were it introduced, there must necessarily be a Hand quite disengaged, to find out the Sutures, and hold the Head steady, to resist the Force of the penetrating Instrument; wherefore this Scheme, if ever attempted, must prove unsuccessful.

Now let the considerate Reader reflect on the Objections raised to the several Methods of, and Instruments for, the Extraction of the Head remaining in the Womb separate from the Body: I am convinced he will allow, that the Evacuation of the Brain is first necessary, as conducive to the Performance of this Operation; and consequently all the Methods prior to it, as drawing it forth by the

lower Jaw, Application of Crochets, Sling or Purse, are confuted ; he will also agree with me in condemning long or short Knives, as dangerous and ill contrived ; wherefore it now remains that we should find out some Instrument more convenient and less dangerous ; for which Purpose I humbly offer the *Terebra Occulta*, already described, in which is obviated every Objection already raised to the above-mentioned Instruments ; to confirm which, I shall take the Liberty to give the following History.

IN *January* 1739, I was sent for, to the Assistance of a Servant who lived in a public House, at the Corner of *Chancery-Lane* in *Golden-Lane* : She was a Woman of exceeding low Stature and much distorted in her Shape ; she had been in Labour for two Days before, yet there was no Dilatation of the *Os Tincæ*, except what a small Bag of Water had made ; upon dilating the Orifice, I found a most strangely mishapen Pelvis ; as if there had been a Luxation of the *Os Sacrum* and lower Vertebra of the Loins, whereby the upper Extremity of the *Os Sacrum* was turned down to the *Os Pubis*,
which

which likely had been the Case ; I immediately perceived the Impossibility of the Infant being brought forth Head foremost ; wherefore with exceeding great Difficulty, I put my Hand very well oiled, through this narrow Passage, and with as much Difficulty turned the Child so as to bring it by the Feet ; after two Hours excessive hard Toil, I brought the Body and Arms into the World ; but had it been to save my own Life, I could not have brought away the Head ; wherefore after many vain Endeavours, I was at last obliged to separate the Body from it, by turning it round, whereby the Neck was dislocated ; I fortunately had the last mentioned Instrument with me ; so immediately introduced my Left Hand into the Womb, and held the Head between my Thumb and Middle-finger, fixing the Index on the Fontanell, by which means I held the Head steady, and at the same Time pointed to the Place where the Perforation was to be made ; I then took the Terebra Occulta in my Right Hand, by that Part of the Capsula which contains the Spring, and thrust it forward till it arrived at the Fontanell by the Direction of the Index, being free from any Danger therefrom on

the Patient's Side, and so pusht in the Handle, whereby the Operation was performed ; then by squeezing the Bones of the Head together ; I evacuated the greatest Part of the Brain, and introducing two Fingers into the Perforation, drew the Head forward with as much Ease as the Narrowness of the Passage would admit of, having more Difficulty in bringing away my Hand than the empty Skull. Afterwards I brought forth the Placenta, and cleansed the Womb of the Brain, &c. with my Hand : This Patient recovered, and is still living and well, which in my Opinion could not have happened, were it not for the Assistance of the Terebra Occulta.

THIS was the most laborious Operation I ever performed ; though it was in the midst of the great Frost, yet I sweated through all my Cloaths ; and my Left Hand was so swelled, that I could not make use of it rightly in ten Days after.

THE next instrumental Operation that comes properly under our Care, is the Delivery where the Child is dropical to such a Degree, that it cannot be brought forth till
the

the Belly be emptied of some of its Contents; this extraordinary Inflation happens, either before or after the Child's Death, but most commonly after. When it happens in its Life-time, it is a real Ascites, being filled with extravasated Serum; but that after Death is of a quite different Nature; being nothing more than the Air contained in the Cavity in general and in the Viscera, which is rarified and expanded, by the Putrefaction consequential to Death, and that much increased by the Warmth, Moisture and Action of the Womb.

THIS Evil is not to be discovered till the very Instant the Operation is to be performed; namely, when the Hands and Shoulders are extracted, and so much of the Body, till the extraordinary Size of the Belly hinders its coming any farther; wherefore there are no precautionary Directions to be given, more than what is necessary to preserve the Mother from Danger; in order to which we must take Notice of what has been the Practice hitherto.

THE Instrument in Use for the Performance of this Operation, by the Authority of Mr. MAURICEAU, &c. is really very surprising; I cannot see how all the Care and Caution of the most expert Artist, can possibly secure the Patient from Destruction; his Method is as follows: “ When there is
 “ a Dropsy either in the Head, Breast or
 “ Belly of an Infant in Utero, so as to hinder the Birth, there must be an Opening
 “ made in the Part affected, by a crooked
 “ Knife, as marked in the Figure representing the Instruments necessary for Operations in Midwifry; the Left Hand must be
 “ introduced to the Part where the Perforation is to be made, and with the Right,
 “ the Knife, with the Point next the Left
 “ Hand, which is to direct it to make the
 “ Puncture.”

By looking at the Instruments in MAURICEAU's Treatise of Midwifry, the Reader will find that this crooked Knife is not shaped like a common Bistoury, as one might imagine from the Name crooked; for by the Way of Distinction it should be called hooked; the Point being at least an Inch and half
 from

from the Back of the Knife where the Bending begins. Now let us consider the Belly, the Seat of this Operation : First then, the Passage is taken up by the Child's Body ; next to that the Operator's Hand is to be forced in, to direct this Knife, and then the Knife itself, with the Point towards the Operator's Hand, which from the Shape of it, I may venture to say will take up two Inches more ; so we may say, that between the Hand and Knife, there is the Space of three Inches taken up in the Passage, over and above the Child's Body. Hence it is very natural to imagine the Child's Belly must be very monstrous indeed, that could not be brought away where there is so much Room to spare ; but this to be sure is an impossible Case.

HOWEVER if on the Credit of MAURICEAU and others, a Practitioner in Midwifry should undertake this Operation, according to the above Directions, (as doubtless often has been the Case) what terrible Havock must he make not only of the miserable Patient, but of his own Hand also, against which the Point is to be conducted.

If

If I have the Happiness of being rightly understood, every Reader will certainly join in my Opinion concerning this Matter.

Now as to a substitute, the *Terebra Occulta* is perhaps more happily adapted to this Occasion, than any other; for in this Operation, the Patient is more obnoxious to Danger than any other, from the Body of the Child taking up in short the whole Passage; as will appear more fully in the following History, wherein to avoid Prolixity, we will also shew the manner of performing this Operation.

IN *August* 1740, I delivered a Woman in the *Brick-fields*, between *Ring's-End* and *Merion*, whose Husband died about six Weeks before, on which Account she was obliged to attend a Horse, by whose Labour she had her daily Support; carrying a large two-handled Tub of Water for this Horse to drink, between her Hands, the whole Weight lying on her Belly, killed the Child in the Womb, which she discovered by the Contusion on her Belly, and the Fœtus ceasing to stir from that Time, for the Space of four Weeks; after

after which she fell in Labour, which lasted two Days before I was sent for. I found her in a violent Fever, and extremely delirious ; there was a very sufficient Dilatation of the Vagina and Os Tincæ, and yet, notwithstanding two Days strong Labour, I could scarcely touch the Child's Head with my Finger, so little was it advanced ; there were Circumstances sufficient to confirm the Death of the Child ; wherefore I immediately pierced the Head with the Terebra Occulta, brought forth part of the Brain, by introducing my Hand into the Vagina, and by thrusting two of my Fingers into the Perforation, brought the Head to the external Orifice of the Vagina, but could not possibly bring it farther. Imagining the Shoulders to be the next Obstacle, I fixed a Hook as formerly directed under each Axilla, by which I brought it so far as to extract the Hands, but farther it would not come ; which gave me sufficient Reason to conclude, that a Pneumatocèle of the Belly, was the Cause of the whole Difficulty ; wherefore I introduced my left Hand into the Vagina as far as possible, with the Palm to the Sternum of the Child ; and between the

the Hand and Child, forced in the Terebra Occulta, as far as the Extremity of my Fingers, whereby I pressed the End of the Capfula against the Child's Belly, with as much Force as the confined State of my Fingers would admit, and then pushed forward the Handle of the Terebra with my Right Hand, in order to make the Puncture; whereupon I expected the Air would have rushed forward, but was disappointed, at which I was a good deal mortified; however I imagined that the Puncture might have been made above the Diaphragm; or that the Piercer did not penetrate the Peritonæum; wherefore I repeated the Operation, with this Difference, that when the Opening was made, I plunged in the End of the Capfula after the Piercer, which completed the Business; for there immediately issued forth a Torrent of most fœtid Air, and the Child without any Assistance followed. The Funis was quite consumed, and the Placenta was more like a soft Coagulum, than a solid Body; yet this poor Woman recovered, and in six Weeks walked to Town to return me Thanks for her Delivery.

Mr.

Mr. MAURICEAU Remarks, that the Head or Thorax may also be dropfical, so as to impede the Extraction of the Fœtus. When the Malady is in the Head, the Case is ranked among those where the extraordinary Size of the Head hinders the Expulsion, without any other Distinction. If it be in the Thorax, the Operation is to be conducted in every Respect, as if in the Abdomen ; namely, the Child must be extracted as far as possible, before the Introduction of the Terebra ; and then, the Puncture must be made as far beyond the external Orifice of the Vagina, as the Degree of Inflation will permit the Hand to go, for the Direction of the Instrument.

THE Dropsy of the Belly may also hinder the Delivery, when it is attempted, by bringing the Child forth by the Feet ; which does not in any Respect alter the Manner of the above-described Operation.

IF an Arm presenting in the Beginning of Labour, should through Ignorance or Wickedness, be suffered to advance so far, and continue so long in the Passage, that from its swelling,

swelling, and Parts of the Mother contracting, it cannot be put back, notwithstanding all the Endeavours of the Operator, as described in the second Part of this Treatise ; then there is a Necessity for separating this Member from the Infant in order to come at the Body to extract that, for the Preservation of the Mother's Life.

THERE have been various Instruments propos'd by the Authors, for the Performance of this Operation as Knives, sharp Pincers, &c. but I believe they are now universally exploded, and that with good Reason ; for it may be better and more easily done without any Instrument but the Hands ; whereby the Mother is secured from Danger, and the Child should it happen to be alive, has a much better Chance of escaping. However, as AMBROSE PAREE authorizes the Amputation of this Limb, we shall make a Comparifon of the two Methods, for the Reader's better Information.

THIS Author adviseth, to make a circular Incifion to the Bone, as high as possible in the Arm, when in the above Situation ;
and

and with a Pair of sharp Pincers, to divide the Bone above the Incision, that the Flesh may come over the End of it, whereby to preserve the Womb from being hurted by its roughness; after this the Child is to be turned and brought forth by the Feet after the usual Manner.

IN this Operation we must first mention the Danger of wounding the Mother, which is an Objection never to be got over; and next, in all likelihood the Difficulty cannot be removed by this Amputation; for if it be made as high as is possible, which cannot be much above the external Orifice of the Vagina; the Part that filled the Orifice of the Womb, still remains, so that the Delivery is as far as ever from being completed. Besides, should the Infant happen to be alive, it must absolutely bleed to Death before it could be extracted; for in this Case, there is no Possibility of making Ligatures on the divided Arteries of the Arm, so as to stop the Hæmorrhage which must follow if there be Life.

THE other Method of separating the Arm from the Body, when thus unhappily engaged in the Passage, is to take hold of it above the Elbow, and by twisting it three or four Times, there will be a Separation very easily made at the Articulation of the Humerus and Scapula. This Method which has MAURICEAU's Approbation, is free from all the Objections to that by Incision; for the Mother can be in no Danger; the Passage is cleared for the Operator's Hand; and tho' the Child be living, there will probably be no great Effusion of Blood; for the Contraction of the Fibres composing the Coats of the Arteries, is much greater when divided by violent Distention, than when cut asunder; which Degree of Contraction closes the Mouths of the Blood-vessels, so as to hinder the Effusion. This is confirmed by an Accident which happened in *London* 1737 to a Miller, whose Hand was caught in one of the Teeth of the Mill-wheels, whereby the whole Arm and Scapula were torn from the Trunk; this Man was immediately brought to St. *Thomas's* Hospital, where he was cured in a very few Days; the Wound in the Flesh was very small, and

no

no Appearance of Blood-vessels, nor did he lose four Ounces of Blood ; he was seen by the Royal Society, and most of the Curious in that City.

BOTH the above-mentioned Authors give a strict Charge, that the Operator should be very certain of the Child's Death before he attempts this dismembering by either of their Methods, but give no Directions how to behave otherwise ; for which Reason it might as well or better be omitted, for the Reader is left quite at a Loss, perhaps to let both Mother and Child perish. Doubtless it is necessary that an Author should endeavour to make his Reader as cautious as possible, in such important Matters ; wherefore I shall take upon me strenuously to recommend Consultation, not only where a Life, but even where a Limb is at Stake. For though there be not Indications sufficient to confirm the Child's Death, yet it must be brought forth, if the Mother's Death should be thought a probable Consequence of her not being speedily delivered.

As all Authors who have wrote of Midwifry, have mentioned the Delivery of Monsters; and as such Things are possible, we shall take Notice of what seems material in those Cases: It may happen from some Confusion in Impregnation, that two Children may be joined together; it may also happen that the same Child may have supernumerary Limbs, or having the right Number may be preternaturally placed; they may also have extraordinary Excrescences on various Parts of the Body or Extremities, with many other *Lusus Naturæ*; which are to be discovered by the Examination of the Operator, upon the Delivery being retarded; for which Purpose there are Directions sufficient in the foregoing Treatise.

WHEN the Adhesion of two Children to each other hinders the Delivery; the Parts adhering must be discovered, in order to separate them. The usual Directions for this Purpose, is to make a Division with a Knife, taking all possible Care to avoid wounding the Womb. The Danger which the Patient incurs on these Occasions has been already set forth; wherefore the following

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ing Method seems more likely to succeed ; that is, to introduce the *Terebra Occulta* to the Part where the Adhesion begins, and with its Point, dividing the Skin in that Part only, the Separation may be finished by the Operator's Fingers, without any more cutting ; for the Skin, which only united them, will easily tear, after the least Incision ; this seems to be much the easier and safer Operation both for Mother and Children if living.

EXCRESCENCES must be removed as much in the same Manner as is possible : And Limbs preternaturally disposed, so as to hinder the Birth, must be taken off, according to the Directions already given for the dismembering.

THE Reader in all likelihood will expect before this little Treatise is finished, to have something said concerning the *Cæsarian Operation*. As there are various Opinions in relation to this Matter, we shall endeavour to set the unexperienced Reader right in that Respect, with Regard to the Opinion most worthy of his Favour ; to which End he

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must

must be first informed, what is generally understood by this Term.

CÆSARIUS, or the Cæsarian Operation signifies the taking a Child out of the Womb, by an Opening made by Incision, through the Integuments, Muscles, &c. of the lower Belly, large enough for that Purpose; and this is to be done either while the Mother is living, or after her Death, according to the Nature of the Circumstances. This Term is derived from the Latin Verb *Cædo*, which signifies to cut, and this Operation as we are told, gave the Name of CÆSAR to that Race of *Roman* Emperors who enjoyed it, from the first of them being taken after this Manner out of his Mother's Womb.

THIS Operation without Doubt, got its Rise before the Art of Midwifry arrived to any Degree of Perfection; and in all Probability it was this that brought it into the Hands of the Surgeons; for in the Beginning, (it is natural to imagine from the Ignorance of the present Female Operators) there was little or no Assistance given to the Patient in preternatural Labours, whereby
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many, both Mothers and Children perished ; which made the Surgeons imagine, (not looking on Midwifry as Part of their Province) that by their Art, they might sometimes save the Child ; and this in all likelihood gave Rise to the Operation now under our Consideration ; which having frequent Occasion to put in Practice, they, or at least some of them by this Means became acquainted with the Situation of the Child in the Womb, and the particular Anatomy of those Parts. And this consequently put them upon endeavouring to bring the Child, though in a preternatural Situation, into the World, without destroying the Mother ; and certainly as this Knowledge increased, the Cæsarian Operation became in Disrepute, and probably became quite exploded. However, in the Beginning of the last Century, it seems to have come again into Repute in *France* and *Germany*, and many Authors wrote in its Defence ; declaring that it was not mortal to the Mother, and in short that it should be always done, rather than destroy the Infant ; to confirm which, they have given many Histories of Women who have recovered, and had Children after it ; nay, they tell you

of some who have had several Children brought forth by this Operation, but I hope none of them will gain any Credit from the Readers of this Age; for from Theory, Anatomy, and every Thing consistent with Surgery, the Cæsarian Operation is most certainly mortal as we shall endeavour to prove presently, from Reason and the Nature of the Thing; and I hope it will never be in the Power of any one to prove it by Experience.

BEFORE we proceed any farther, it will be necessary, in order to invalidate the Authority of the Favourers of this unparalleled Piece of Barbarity, to consider what could be their Motive, to hand down to Posterity, Facts in themselves so demonstrably false; what appears to me the most probable in this Respect is this: It is a Principle among the *Roman-Catholics*, that the Soul of every Child that is not baptized, is annihilated; and consequently, it is the Opinion of their Divines, that the Soul of the Mother whose Existence is established, should be separated from the Body, rather than the Soul of the Infant should be absolutely lost. Now if
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we consider the Biggotry of that Age, and the Ignorance of the Generality of People in Matters of Religion, we may easily conceive how they might have been led beyond their Reason ; besides, Policy and the Desire of serving a certain Set of Men, whose Interest was worth cultivating, might also possibly lead them beyond their Reason. Mr. MAURICEAU, who is perfectly averse to this Operation, mentions a Women in the *Hotel Dieu* at *Paris*, who being with Child, pretended to dread prodigiously her approaching Labour, having suffered (as she said) the Cæsarian Operation in her last ; at the same Time shewing the Cicatrix of the Wound ; upon hearing this, our Author desired to see her Belly ; but the Cicatrix was the Consequence of an Abscess, which she formerly had under her right Breast. This shews what Impostures there are, though it be to answer no End, but to create Pity and Surprise : but when Religion was the Source of this Prejudice, there were many such Cheats without Doubt.

As this detestable, barbarous, illegal Piece of Inhumanity, has been encouraged by many

Authors ; as BAUHIN, ROUSSET, LAMOTTE, and many others, whose Credit in other Respects is of no small Consequence ; and as this Encouragement extends so far, as to give Attestations of the Recovery of those on whom this Operation had been performed ; it is therefore necessary to shew some Reasons for the Improbability, nay Impossibility of Success in this Operation.

It is well known both by Experience, and the Authority of all our Predecessors, that penetrating Wounds into the Belly, how small soever, are extremely dangerous if not mortal, though none of the Viscera be wounded ; but when any of them is wounded, though in the smallest Degree, it is reckoned in the Number of mortal Wounds ; though the Patient was before in a State of perfect Health. I shall refer to CELSUS, FABRICIUS AB AQUAPENDENTE, READ, WISEMAN, or any of them, for a Proof of the Danger of penetrating Wounds, particularly when any one of the Viscera is wounded ; where the Reader will find Reasons sufficient to convince him.

IF the smallest penetrating Wound be dangerous in a healthful Person, how effectually mortal must the Cæsarian Operation be? for instead of a very small Puncture, here is a penetrating Wound of at least eight Inches in Length, with another of almost the same Length, in a Bowel most capable of all the symptomatical Evils attending Wounds of those Parts, together with the following additional Aggravations : It is known from the Theory of the Womb, that the Uniformity of its Extension is owing to the frequent Anastomoses of its constituent Blood-vessels, which are (some of them at least) very large at the Time of the Birth ; whence it is evident that the Patient must bleed to Death by a Wound in the Womb, especially a large one, for here some of the large Blood-vessels cannot escape ; this is undeniably proved, by the Hæmorrhage which always follows the Extraction of the Placenta, where the Opening of the Arteries, happens at their most minute Extremities ; and it sometimes happens, when there is any Violence used in the Extraction of the Placenta, that the Patient bleeds to Death, notwithstanding

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ing all possible Means be used to stop it. What then must be the Consequence, when there is a Wound made through the whole Substance of the Womb, large enough to give Passage, perhaps to a monstrous Child? Again, admit that this Hæmorrhage might cease in some reasonable Time, 'tis past all Dispute there must be a very great Discharge; where then must this Blood go? Into the Cavity, among the Intestines and other Viscera, whence it cannot be removed 'till after Putrefaction, which it must evidently communicate to the Intestines, at this Time having their natural Tone much impaired, from the great Alteration in the Distribution of the Blood during the Time of Pregnancy: Moreover, the Intestines were designed by Nature, to be excluded from the external Air, which is always very pernicious to them; there might be many more Circumstances offered, to confirm the Fatality of this Practice; but what has been said, seems fully sufficient to convince any one who is not a Sceptic.

As it cannot be denied, that this Operation must necessarily destroy the Mother ; the Question must arise, whether there be generally any Case in Midwifry, where the Performance of it is warrantable, while the Mother is yet living. Indeed I think this admits of no Doubt in a Christian Society ; but to discuss this Matter particularly, is the Business of a Divine, to whom I shall leave it,

THERE may certainly one Case happen, where the Mother and Child must perish, if the latter be not rescued by the Cæsarian Operation ; namely, when the Pubis and Sacrum are so preternaturally near each other, that the Operator's Hand cannot pass between them, in order to come at the Child. And even in this Case, I do not know that we have Authority to destroy the Mother, though it might save the Child ; this deplorable Dilemma should certainly be cleared up by the Divines,

F I N I S.

To make this Treatise of more general Use, (especially to Women who live in the Country remote from the Assistance of skilful Persons) the EDITORS have here subjoined an Explanation of the Terms of Art.

A.

A*Bdomen.* The lower Belly.

Abdominal. From Abdomen.

Abortion. Miscarriage in Women. Bringing forth the Fœtus before the due Time.

Abrasion. Wearing away.

Adhesion. Sticking or cleaving to.

Adult Grown up.

Amnios. The innermost of the two Membranes which contain the Fœtus, and Water in which it swims.

Amputation. The cutting off a Part [Member] of the Body.

Anodine. Remedies that assuage, or take away Pain.

Anus. The Extremity of Intestinum Rectum, commonly called the Fundament.

Apophyses. Protuberances at the Ends of Bones, closely adhering to them, but not an inseparable Part of them.

Articulation. The joining of the Bones.

Ascites. A particular Species of Dropsy.

Axilla. The Arm-pit.

C.

Cadaverous. Belonging to a dead Carcase, as a cadaverous Smell is what resembles that of a dead Body.

Callous. That Disposition of a Wound or Ulcer whereby the Lips become swelled and hard.

Cartilage. A smooth solid Body softer than a Bone, but harder than a Ligament, commonly called a Gristle.

Cartilago Ensiformis. The Tip or Extremity of the Breast-bone.

Catamenia. Monthly Discharges in Women.

Cerebellum. That Part of the Brain which lies on the back-part under the hind-part of the Cerebrum.

Cerebrum. That Part of the Brain which lies in the fore Part of the Skull.

Chorion. The outer Membrane that involves the Fœtus to which the Placenta adheres.

Cicatrix or *Cicatrice.* A Scar or Mark left upon healing a Wound or Ulcer.

Circumjacent. Lying about.
Circumvolution.

AN EXPLANATION of, &c.

Circumvolution. Winding about.

Coagulum. A Fluid that has acquired such an Alteration as Milk does, when mixed with Runnet.

Coccyx. The Extremity of the Os Sacrum, consisting of three or four Bones gradually diminishing 'till it ends in a small Cartilage.

Collapſe. To fall together.

Collum minus. The Entrance from the Vagina to the Womb.

Contiguous. Touching or joining, tho' not perfectly united.

Continuous. Perfectly united.

Contraction. Drawing together, or shrinking up.

Cornua uteri. Supposing the Womb triangular and the Entrance one of the Angles, then the Cornua are the small Orifices, one in each of the other Angles thro' which the Ovum passes into the Womb.

Coronal Suture. The first Suture of the Skull, reaching from one Temple to the other.

Cranium. The Skull.

D.

Deterſive. Cleansing Medicines.

Diaphragm. The Midriff, or Division between the Breast and Belly.

Dilaceration. Tearing or rending away.

Dilatation, Widening.

E.

Elastic. Springy ; is that

Property in Bodies whereby they endeavour to restore themselves to the Posture from whence they were displaced.

Elliptical. Oval.

Embrio. The first Rudiments of the Child in the Womb before perfect Formation.

Emenagogues. Medicines that promote the Menſes.

Emollient. Softning Medicines.

Epiphyses. When one Bone grows to another without any Articulation.

Excrescence. A fleshy Tumour, or superfluous Flesh growing on any Part of the Body.

Extraneous. Any Thing foreign to the Part.

Extravasated. When the Blood or any other Matter gets out of its proper Vessels.

F.

Fallopian Tubes. A Canal from each Ovary to the Cornua Uteri, through which the Ovum passes to the Womb.

Fæces. The Excrements.

Fluor Albus. The Whites.

Fætid. Stinking.

Fætus. The Child in the Womb.

Fontanel. The Opening of the Child's Head,

Forceps. A Kind of Pincers used in Surgery to extract or draw Things from the Body.

Fundus Uteri. The Bottom of the Womb.

Funis Umbilicalis. The Navel String.

G.

AN EXPLANATION of the

G.

Gestation. The Time of a Woman's being with Child.

Grumous. Thick or viscid, as when the Blood is too thick for Circulation and stagnates.

H.

Hæmorrhage. A Bursting-out, or Flux of Blood from any Part.

Horizontal. Level or flat, as the Surface of Water is said to lie in an horizontal Position.

Humerus. The Shoulder.

I.

Ichor. A Humour thicker than Serum which flows from Ulcers.

Ilium. A large Bone on each Side the Os Sacrum. The Hip-bone.

Index. The Fore-finger.

Inflate. To blow up.

Inflation. From inflate.

Inosculation. Where one Vessel is let into another.

Integuments. The Covering or Membrane of any Part.

Intestines. The Guts.

Intestinum Rectum. The last of the Intestines, whose Extremity forms the Anus.

Impregnation. Becoming fruitful.

Ischium. The Bone which receives the Head of the Thigh Bone.

L.

Labia Pudendi. The Lips at the Entrance of the Vagina.

Lambdoidal. One of the Sutures so called.

Ligamenta lata. } Particular

Ligamenta Rotunda. } cular

Ligaments by which the Womb is fastened or tied to the Body.

Ligament. A white solid Body (softer than a Cartilage and harder than a Membrane) by which the Bones are fastened together.

Ligature. Any Thing tied about any Part of the Body.

Lochia. } The

Lochial Discharge. } particular Discharge or Evacuation attending Women in Child-Bed.

Lubricate. To smooth, or rather to make slippery.

Luxation. A slipping of any Thing out of its Place, the disjoining of the Bones.

Lymph. A thin transparent Fluid contained in Vessels called the *Lymphaducts*.

M.

Matrix. The Womb.

Menses,

Menstrual Discharge } The monthly Evacuations of Women.

Mucus. A slimy Liquor or Moisture.

Mucous. From *Mucus*.

Musculus Membranofus. One of the Muscles of the Thigh.

N.

Narcotic. Medicines that produce Sleep.

Nutrition. Nourishment.

O.

Opake. Obscure or dark, Bodies which will not let the Light through.

Os

TERMS of ART.

Os Coccygis. See *Coccyx*.

Os Frontis. A Bone of the Skull, commonly called the Forehead, which joins the Bones of the Sinciput and Temples by the coronal Suture.

Os Ischium. See *Ischium*.

Os Occipitis. The Bone of the hind Part of the Head.

Os Pubis. The share Bone at the lower Part of the Belly which forms the Fore-part of the Pelvis.

Os Sacrum. The lower Part of the Back Bone which forms the back Part of the Pelvis.

Os Iliæ. The Hip Bones which form the Sides of the Pelvis.

Os Temporis. The Bone of the Temple.

Os Tinæ. A Protuberance at the Mouth of the Womb.

Ovarium. The Ovary or Repository of Eggs which pass from thence through the Fallopian Tubes into the Womb, of which the Fœtus is formed.

Ovum. The Egg.

P.

Parenchymatous. A soft Body, rather vascular than fibrous,

Parietal. Bones composing the Sides of the Head.

Paroxysm. The Height or Fit of any Distemper that returns at certain Times.

Parturition. Bringing forth.

Pellucid. Transparent.

Pelvis. A Cavity in the

lower Part of the Abdomen formed by the *Os Pubis* on the fore Part, of the *Os Sacrum* on the back Part, and the *Ossa Iliæ* on the Sides: It contains the Womb, Vagina, the Bladder and Intestinum Rectum.

Perforation. An Opening or Hole.

Placenta. The Afterbirth.

Pneumatocele. A windy Swelling or Tumor.

Pregnant. Being with Child.

Procreation. Generation or breeding the Species.

Prolapsus uteri. The falling down of the Womb.

Prominent. Jutting out, or standing forward.

Protuberance. A bunching, or standing out.

Pudendum. The Entrance of the Vagina.

R.

Radicles. Small Shoots or Roots.

Rectum. See *Intestinum rectum*.

Rimulæ. Small Chinks or Wrinkles.

Rotatory. Turning round.

Rugæ. Wrinkles.

S.

Sagittal Suture. One of the Sutures of the Skull.

Sanious. A thick bloody Pus or Matter.

Scapulæ. The Shoulder-blades.

Scirrhus. A Hardness, or Induration of the Glands in any Part.

Scirrhus. Of *Scirrhus*.

Serum,

AN EXPLANATION of, &c.

Serum. The watry Part of the Blood.

Spincter. Muscles that draw up and shut the Parts, are called Spincters, as the Spincter Vesicæ of the Bladder, and Spincter Ani that closes the Fundament.

Spine. The Back bone.

Sternum. The Breast-bone.

Stimulate. Is the Action of some kind of Bodies on tender Parts, which causes a Sensation, much about the Degree of itching; ending frequently in Pain and Inflammation.

Suspensorium. A holder up, or Supporter.

Suture. The particular Articulation by which the Bones of the Skull are joined.

T.

Tenesmus. A continual Inclination to go to Stool.

Terebra Occulta. A hidden Piercer.

Thorax. The Breast.

Turgid. Swoln, puffed up.

V.

Vagina. The Sheath or Passage from the Pudendum

to the Womb, sometimes called the Neck of the Womb, the Entrance of it called the external Orifice of the Womb, and the Entrance to the Womb the internal.

Valves. Little thin Membranes in the Vessels, as it were like folding Doors to prevent a Reflux of any Fluid by the same Canal.

Vascular. A Part whose Texture is intirely made up of Vessels, for separating some Fluid from the Blood.

Ventricle. Signifies any small Cavity.

Vertebræ. The Bones which compose the Back-bone.

Vertical. Erect.

Viscera. The Bowels.

U.

Ulna. A Bone on the inside of the Arm, reaching from the Elbow to the Wrist.

Uterus. The Womb.

Uterine. From Uterus, as Medicines which promote the natural Discharge of the Womb, are called Uterine.







